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THE MEDICAL SERVICE AVAILABLE FOR CANCER PATIENTS IN THE UNITED STATES

SUGGESTIONS FOR ITS IMPROVEMENT *

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In 1927 we were appointed a committee by the American Society for the Control of Cancer to report on the best methods of improving the service to the cancer patient. The present report is based on an individual study of the problem by us and on information secured from many sources. Discussions have been held with other members of the society and with many physicians, surgeons, and public health officers. The reports of the cancer conference at Lake Mohonk in 1926, and of the London congress of 1928, have been consulted. We and other members of the society have visited several European countries and have observed the trend of thought and progress in those countries and discussed the question of cancer service with authorities in each of these countries. In Europe we found uniform agreement that improvement in cancer service must precede any substantial progress in cancer control.

The character of the report, and its recommendations, have been determined mainly by consideration of the nature of the diseases concerned, of the great advances recently made in the knowledge of the natural history of cancer, of the enlarged demands now made in the diagnosis of tumors, and of the introduction of new and highly technical methods of treatment.

Cancer is now the most important, economically, of the causes of death, and contests with heart disease, a miscellaneous category, the first position in frequency. In a broad sense it is also increasing in frequency and is destined to become even more important medically and economically.

Cancer differs from all other major causes of death in being essentially a lethal disease. Unless interfered with, it invariably causes death.

Cancer differs from many other major causes of death in the fact that, while fatal if uncontrolled, it is curable in a considerable proportion of cases if diagnosed early and treated by approved modern methods. The force of this consideration is not reduced by the fact that in many instances it cannot now be diagnosed early or treated successfully. Early diagnosis and expert treatment thus become of far greater importance with cancer than with any other major cause of death.

When the field of cancer diagnosis is surveyed, it is found that this branch of medicine involves a great variety of procedures, instrumentations, clinical observations and experience, provided only by specialists in the various departments of medicine. Such diagnosis often requires an extensive list of laboratory procedures which again can be provided only by those who have had considerable experience. The histologic diagnosis of tumors has always been recognized as a field requiring long experience in general histopathology and in the special pathology of tumors. The pathologist may no longer discharge his function by recording that the case is one of carcinoma or sarcoma. He is required to give a histogenetic diagnosis, to estimate, as far as possible, the grade of malignancy, and the grade of radiosensitivity, and to aid in making a clinical diagnosis and prognosis. Such information is required to guide the surgeon and radiologist in the choice and in the character of the treatment, as well as to offer a prognosis as to the probable outcome of any treatment.

All of these arms of service are rendered more difficult by the fact that cancer differs in important features, clinical and pathologic, in the different organs, and with the different cancers in the same organ, and more so than with any other major cause of death.

Finally, the introduction of new methods of treatment has transformed the field of therapeutics from a comparatively simple series of standard operations into a highly complex question of choice, involving deliberate conference between surgeon, radiologist and pathologist, all of whom should be familiar with the whole field of cancer therapeutics in general and with their own specialties in particular.

Under these circumstances we have been forced to conclude that the treatment of many major forms of cancer can no longer be wisely entrusted to the unattached general physician or surgeon, or to the general hospital as ordinarily equipped, but must be recognized as a specialty requiring special training, equipment and experience in all the arms of the service. We feel that the future development of cancer therapeutics will develop along the lines of concentration, organization and specialization.

This view is by no means new. It is well known that the most conspicuous work in the treatment of cancer has long been accomplished by specialists, often in a comparatively narrow field, as in brain tumors, uterine cancer and mammary cancer. We note that the establishment of cancer institutes, special cancer hospitals and organized service in general hospitals is progressing rapidly in many cities of America and Europe. We have observed elaborate programs for raising funds to provide the expensive equipment now

* A report to the American Society for the Control of Cancer by a special committee composed of the authors.

required. We found that in most European countries the view is held that the campaign of public education, while highly important, should await the provision of more adequate facilities for the treatment of cancer when the patient has come early or late to the physician.

PRESENT STATUS OF CANCER SERVICE IN THE UNITED STATES

That the difficulties just reviewed are rendering cancer service in the United States very deficient in important respects is well known to all observers. Yet, in order to secure specific information, a special survey was made for us by Dr. Harry C. Saltzstein,[1] who in 1928 visited nineteen cities with a population between 100,000 and 1,000,000. The object was to ascertain what treatment was available to the average American citizen in the average American city. With two exceptions well known medical centers were avoided, but the observations made apply to a large proportion of cancer patients even in the large medical centers.

It was found that, aside from cancer of the skin, cancer of the breast was considered to be the most potentially curable type. The number of breast amputations for cancer was five times as great as the total number of resections of parts of the alimentary tract, although the incidence of cancer of the alimentary tract is four times as great as that of mammary cancer.

The extent of the breast amputation varied considerably. About 50 per cent of the surgeons invariably did the Halsted-Willy Meyer radical operation, removing both pectoralis major and minor, and carefully dissecting the axilla. Thirty per cent of the surgeons frequently left the pectoralis minor, while from 8 to 10 per cent always did so. Fifteen per cent left the pectoralis major, especially if the growth was below and outside the nipple or the case was far advanced. Thus, it is evident that the technic of so important an operation is far from being consistent.

Most of the treatment for carcinoma of the cervix was by irradiation. Early cases were rarely seen. The skill required for the radical surgical operation was not often available.

The operative mortality in seventy-five hospitals visited in the nineteen cities was 40 per cent in stomach resections, 44 per cent in colon resections and 49 per cent in rectum resections, which is much higher than that of the best surgeons. Most of the surgeons who saw many cases of cancer were advanced in years. Several were pessimistic regarding the possibility of curing cancer. Their experience, which was frequently large, did not make them believe that surgery offered the patient much hope. The number of surgical cures of intra-oral, gastric and rectal cancers was very small.

Most of the radiologists using x-ray machines had taken to treating cancer after having been roentgen diagnosticians. Very few had had much clinical experience, and fewer still any training in pathology. On the other hand, their roentgenographic technic was generally good.

There were wide variations in the methods employed in roentgen and radium therapy in nearly all forms of cancer. In only three cities were the amounts of radium available more than 100 or 200 mg.

There was no lack of hospital accommodations for the operable cases, but the facilities for patients with advanced disease were very meager and usually in the almshouse. The expense of treatment, prolonged hospitalization, the cost of surgery, and in some instances radiation, was a frequent cause of delay in seeking any treatment. Most of the treatment of early cases was in private hospitals or private services of general hospitals, and usually by the best surgeons in the community. People were often forced to stretch their financial resources to the utmost in order to get such treatment. Except for standard surgical procedures, the equipment of most of the hospitals and services was incomplete.

Most hospitals kept adequate records of operations, but few had satisfactory follow-up systems. Few private surgeons or radiologists followed their cases accurately enough to know just what they had accomplished.

Most hospitals, even in small communities, had very good laboratories, frequently in charge of able men, but the number of cases of cancer which they saw was generally small, and good tissue pathologists were rare.

We believe that the conditions described are representative of the urban communities of the United States and that the same situation exists for a large part of the population of larger cities. In the so-called country districts, it is obvious that the facilities for the diagnosis and treatment of cancer cannot equal those of medium sized cities, and this fact is borne out by the survey of facilities in the state of New York as made by Dr. John M. Swan.[2]

It should be noted that these observations refer to the best standards of service available in the cities visited and do not take into account that considerable proportion of cancer cases which fall into the hands of inexperienced and therefore incompetent physicians, surgeons and radiologists.

RECOMMENDATIONS FOR IMPROVEMENT IN CANCER SERVICE

Considering the country as a whole, the present cancer service is being furnished by the following agencies:

Special cancer hospitals; state, municipal and private.
Cancer institutes.
General hospitals, unorganized service and organized cancer service.
Private physicians and surgeons.
General dispensaries.
Diagnostic laboratories; state, municipal, hospital and private.
Homes for incurables.
Irregular practitioners of medicine.
Lay healers.

We believe that these forms of service should be reduced in number and concentrated, as far as possible, and should include only the following:

Cancer institutes.
Special cancer hospitals; state, municipal, university and private.
Organized cancer service in general hospitals.
Diagnostic service in general hospitals and dispensaries.
Diagnostic laboratories.
Licensed physicians and surgeons.
Cancer homes.

Cancer Institutes.—We recommend, as an ideal well within the possibility of accomplishment, the establishment of a limited number of cancer institutes. They should be located in large cities, be prepared to give the best modern treatment, and offer facilities for research and education in the field of cancer.

These institutes should, as a rule, be under university affiliation. Complete university control has proved

1. Saltzstein, H. C.: The Average Treatment of Cancer, J. A. M. A. **91**: 465 (Aug. 18) 1928.

2. Swan, J. M.: New York State J. Med. **28**: 1100 (Sept. 15) 1928.

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undesirable in some instances. They should be fully equipped for all forms of treatment, by surgery, x-rays, radium and other methods. At least 2 Gm. of radium should be available. The x-ray equipment should include an adequate number of the most approved instruments for this form of therapy.

The various clinical services should be in the hands of specialists, functioning under a general medical director who is responsible to a governing board.

There should be large facilities for the treatment of outdoor patients.

The laboratory service should include:

(*a*) General pathology. The pathologic department should be headed by a competent full-time pathologist, experienced in the field of general pathology and diagnosis of tumors, and familiar with the results of experimental and clinical investigation of cancer. There should be an adequate staff of technicians for general and clinical pathology.

There should be a museum, a library, a large collection of pathologic material, both gross and microscopic, for teaching, and an assembly room for group teaching and lectures to professional groups: physicians, nurses, dentists and health officers.

(*b*) Physics. This department should be headed by a competent physicist, trained in the physics of radiation. There should be adequate assistance for routine physical work and for research.

(*c*) Chemistry. There should be a competent chemist with assistants devoted to clinical chemical service and research in the chemical problems of cancer and allied diseases.

(*d*) Biology. A biologist or general physiologist with assistants should be provided to conduct experimental work in biologic or physiologic problems.

The clinical service should include:

(*a*) Admissions. The admissions to the hospital should be controlled by an experienced diagnostician with competent assistants, who should examine all applicants, transcribe the initial history, secure the necessary preliminary examinations necessary for diagnosis, and forward the patient to the proper clinical department for treatment. This service should be gratis to those who are unable to pay for it. This office should have control of the admission of all private patients.

(*b*) Clinical specialties. The clinical service should be divided into specialties, recognizing as many of the medical specialties as the resources of the institute permit. Each department should be headed by a specialist, with assistants adequate to handle the service, and devoting their time exclusively to the institute.

If possible all clinical officers of the institute should be appointed on adequate salaries, with additional income provided from private patients according to some equable plan. All fees collected from patients should be received by the institute or approved by its officers.

(*c*) The disposition of patients. The final diagnosis and the method of treatment of each patient, both ward and private, should be determined by consultation between the clinical director and the specialist and such other officers as may be required to furnish necessary data. Obscure and difficult cases should be referred to a general conference of the staff.

(*d*) Regular conferences of the entire staff should be held to discuss important cases, to determine the method of treatment, to observe the results of treatment, to analyze the causes of death, and to determine the policies of the institute. Clinical pathologic conferences should be held at the same, or at other convenient, time.

(*e*) Records. A staff of record clerks, including a statistician, should be provided to maintain full reports of the course and fate of all patients. There should be adequate clerical help for the various clinical departments.

(*f*) Social service. This service is indispensable. It should provide care for advanced cases outside the hospital, in private homes or elsewhere. It should provide nursing, food and instruction of the family of the patient, and assist in obtaining employment for dependent members. It should aid in the follow-up system.

(*g*) Education. Provision should be made for the instruction of undergraduate students by clinics, ward classes and laboratory demonstrations. The practitioner who sends his case to the institute should have opportunity for clinical instruction by following his own patient.

The institute should provide terms of service for the training of specialists, both in the clinical field and in the laboratories.

Courses of instruction should be open to pathologists, physicists and experimental workers. If possible, fellowships should be provided.

A special course of training for nurses in the cancer field should be established.

The work of the institute should be correlated with that of other institutes and hospitals, through the American Association for Cancer Research, and the American Society for the Control of Cancer.

The institute should offer assistance to other arms of cancer service in its territory.

If the resources of the institute are limited, provisions should first be made for effective service in the diagnosis and treatment of cancer.

Cancer Hospitals.—Special cancer hospitals have been erected by some state and municipal authorities and by private organizations. This plan seems to us to meet important needs in many communities. We regard this plan as less satisfactory than the creation of hospitals as parts of cancer institutes, but its adoption has some advantages, and the expense of conducting such a hospital comes within the means of many localities.

Cancer hospitals should, if possible, be affiliated with a nearby cancer institute, if such is available, so as to reduce the expense of equipment and personnel. In any case, connections should be maintained with neighboring centers of activity. A concrete example is the cancer hospital at Pondville, Mass., conducted by the state of Massachusetts and affiliated with the cancer clinics in all parts of the state. We recommend that other states and communities follow the method of Massachusetts in enlisting municipal and state aid. For many large sections of the country there seems to be no other means of providing prompt and efficient service at reasonable cost. Some of these hospitals may well be under the direction of municipalities, as is the Cancer Institute of New York City, but independent organizations or university affiliation are regarded as preferable.

Cancer hospitals should be established only after careful surveys of the existing needs and opportunities for the treatment of cancer patients have been made. As far as possible, they should copy the organization and activities of the cancer institute.

ORGANIZATION OF CANCER SERVICE IN GENERAL HOSPITALS

The organization of a cancer service in general hospitals is advised. These clinics should at least be equipped to diagnose and follow up all cancer cases.

The clinic should be headed by a man of wide training and experience in the diagnosis and treatment of the disease, and one who could work with and coordinate the activities of the general departments of pathology, surgery, medicine and radiology in their relationship to cancer. Such a head would give this group a unity that can scarcely exist if the group is simply made up of selected persons of the various departments. In even the largest general hospitals a considerable number of the members of the surgical staff are interested chiefly in other subjects than cancer.

The diagnosis and treatment of cancer requires the association of a number of different specialties, notably pathology, surgery, medicine, x-ray and radium depart-

ments and the surgical specialties, gynecology, genito-urinary surgery, nose and throat, and skin. By the establishment of a special cancer service in a general hospital, those members of the staff of the hospital who are interested enough to devote their energies to cancer can be brought into close cooperation, with benefit to the patient, to the hospital and to the scientific study of cancer.

This plan does not necessarily involve segregation of cancer patients in one ward, but merely some supervision of the general treatment of cancer and especially follow-up.

An experiment along this line has been conducted at the Massachusetts General Hospital and is now in its third year of operation. The staff consists of about twenty representatives of the different departments, selected from the general staff of the hospital because of their interest in the cancer problem. The clinic functions as a department both of the outpatient division for ambulatory cases and of the house service.

Since it was an experiment, it was believed wise to make the service voluntary rather than obligatory; that is, no member of the hospital staff was under any obligation to send a patient to this so-called tumor clinic for advice or for treatment unless he so desired. Patients are thus not sent to the tumor clinic except at the request of some other department.

That the clinic was able to supply advice and treatment that was desired by other members of the hospital staff is indicated by the fact that it now has an average attendance of about 200 cases a month. In view of this fact, it would probably be wiser in organizing such a service to make the "tumor clinic" a separate department of the house and outpatient service, and to let it deal with all of the tumor patients presenting themselves in the wards and in the outpatient departments of the hospital.

The clinic is equipped with a secretary-stenographer and volunteer clinic secretary. Representatives of surgery and of roentgen and radium therapy are associated in its conduct. New cases are discussed by representatives of both departments, and a plan of treatment, whether surgical or by radiation or otherwise, is determined on and the required treatment carried out, either in the house or in the outpatient department. Many of the special operations and treatments advised are performed in the hospital by members of the tumor clinic staff, but operations of a standard nature are frequently left to the regular surgical department of the hospital.

The only obligatory reference of patients to the tumor clinic at the Massachusetts General Hospital is in relation to the follow-up system. All tumor patients are discharged to report to the tumor clinic on a given date and notice is sent to the clinic of this fact. A patient not reporting on time is then investigated, often with the aid of the social service department, and further information in regard to this patient is recorded. This measure makes it possible to obtain a large amount of accurate clinical data on cases of cancer of different regions, and this work is again helped by the principle of collecting cases of cancer of certain regions on certain days of the week. This large amount of clinical data gives opportunity for valuable study of different series of cases.

The most important function of this clinic, however, is undoubtedly the close coordination of the departments that are concerned in the diagnosis and effective treatment of cancer cases, notably surgery, pathology and radiotherapeutics, and it is believed that the increasing patronage of the clinic under its voluntary organization is sufficient evidence that it provides better service than was obtainable before its organization.

Recently the plan of organizing the cancer service in general hospitals has been adopted in several other hospitals, with increasing centralization and control, making the reference of all cancer cases to the central clinic obligatory. We believe that this is progress in the right direction.

General Dispensaries.—Under present conditions, many cancer patients apply for diagnosis and treatment first to general dispensaries. That such dispensaries should be fully equipped for the early diagnosis of cancer is therefore of much importance.

Certain forms of local skin cancer may be successfully treated in such dispensaries, but only by experienced persons. Most of the cases, and practically all of the major forms of the disease should, in our opinion, be immediately referred to some institution that makes special provision for cancer.

In order to facilitate such transfers and to maintain cooperation satisfactorily to all concerned, it is recommended that all dispensaries in which cancer patients apply establish connections with a hospital or hospitals possessing the best obtainable equipment in personnel and apparatus.

Diagnostic Laboratories.—One of the first essentials for the intelligent treatment of any case of cancer is an accurate histologic diagnosis. This is necessary not only to learn whether the tumor is or is not malignant but also to determine the clinical type of the disease, and also, as far as possible, the grade of malignancy, and radiosensitivity. We find that defects in this field form one of the most serious obstacles to the successful treatment of cancer, and recommend that organized efforts be made to provide at least the minimum adequate service of this kind wherever diagnosis and treatment of cancer are offered to the public.

At present it is a common practice of surgeons to send portions of tissue, not always skilfully selected, to general hospital laboratories, commercial laboratories and private laboratories, for diagnosis by pathologists who often have had very inadequate experience in the diagnosis of tumors. This practice results in many inaccurate and erroneous diagnoses. Diagnosis has even been left to technicians, with disastrous results.

Without criticizing the general competence of the pathologists who do this work, we believe it should be recognized that the accurate diagnosis of tumors requires wide experience and that persons of such experience are not always readily accessible.

For this reason, the free diagnosis of tumors has sometimes been provided in laboratories directed by experienced men, as at the Buffalo State Institute, and the Huntington Hospital at Boston.

We recommend that surgeons form the practice of sending their diagnostic material only to such laboratories as are positively known to be provided with experienced diagnosticians. We further recommend that, with the gradual development of cancer hospitals and institutes, a free diagnostic service be established for patients who are unable to pay a fee.

The Function of Unattached Physicians and Surgeons.—The determination of the proper function of private physicians and surgeons in an ideal scheme of cancer service involves many difficult questions. No simple statement can apply to all conditions.

The family physician is the key man in cancer control. He is usually the first person who is appealed to

by the patient who has cancer, and it is the general physical examination he makes that may first reveal cancer. On the family physician, more than on any other person except the patient himself, dependence must be placed for prompt and proper action.

There is little that the family physician can do in treating the patient himself, unless he is experienced.

In many instances the family physician may not be able to diagnose early cancer when it is present, for diagnosis in the more obscure cases calls for a degree of experience and for special apparatus and methods of diagnosis that are possessed by few family physicians. The number of cancer cases which the average practitioner sees in the course of a year is small. He has neither the time nor the opportunity to learn the many details of theory and practical procedure which specialists working in a narrower field have an opportunity to acquire.

In the state of Massachusetts it is calculated that there are 10,000 patients with cancer living, and 5,000 new cases developing each year. This number would allow two cases of cancer for each of the 5,000 physicians registered in the state.

The function of the family physician, then, should be less that of a cancer doctor than of an adviser. He should be quick to suspect cancer when any of the signs of that disease occur. He should inform himself of all the resources, personnel and equipment that lie within the reach of his patients, and refer his cases judiciously to those who will give them the best attention.

There will be some instances in which the unattached surgeon can readily make the diagnosis and perform the treatment required and others in which both diagnosis and treatment will tax the combined resources of a cancer institute. Between these extremes will be most of the cases.

Some private surgeons are extremely well equipped with surgical technic and experience. They do admirable surgery and may well undertake the treatment of many of the major forms of cancer in the favorable stages. The frequency with which they should treat such cases must depend on their equipment, judgment, and especially an ethical sense of what is for the best interests of the individual case. Many surgeons are seriously considering the question whether they have a moral right to do the operative work unless they are prepared to deal with the many complications and sequelae that so frequently arise in the later course of the disease.

Many social, personal and other practical considerations should determine whether the private surgeon should undertake to treat cancer or should send the patient elsewhere. The mental attitude of the patient, the expense of transportation, delays and uncertainties may well make it better for the patient to receive treatment at once, and be sent elsewhere for any later measures that may be required. Yet it should be recognized that the first definite treatment which a cancer patient receives usually determines the fate of that patient.

Some surgeons have acquired great skill and experience in the surgical treatment of certain forms of cancer, and it is obvious that they can render good service in cancer control. Most of these surgeons are connected with well equipped general or special hospitals.

Definite limitations in the treatment of cancer often confront the radiologist. The dosage of x-rays and radium required fully to control most of the common forms of cancer is now well known. Unless the radiologist is acquainted with the proper dosage and is equipped with suitable apparatus or sufficient radium to apply such dosage, he had better not attempt to treat the case.

Cancer Homes.—We recognize the important service rendered by homes for incurable cancer. This service frequently meets urgent needs which it is difficult to supply in any other way. It seems probable that, in many localities, cancer homes will continue to be necessary.

Yet it is our belief that the isolated cancer home works under certain definite disadvantages, which are often serious. Without the equipment of a special cancer hospital, the situation of these patients is apt to be very unfortunate.

(*a*) There are few cases of advanced cancer for which some relief cannot be furnished by modern methods of treatment.

(*b*) It may be impossible to determine just how hopeless a given case of cancer may really be, and since some remarkable spontaneous improvements and unexpected therapeutic successes are observed in this large group of cases, it is desirable to give each patient the best possible chance for recovery.

(*c*) It may be questioned whether on social and psychologic grounds it is wise to gather in one place a large number of apparently hopeless cancer patients. It would seem difficult to maintain the morale of an institution of this kind. The terminal stages of advanced cancer are important fields for careful study and research, but this material is generally lost in a cancer home.

We believe that the best solution of the problem of caring for advanced cases is to provide for them (*a*) in cancer hospitals or institutes in which acute cases are treated, and (*b*) to develop through the social service of such institutions proper care for such patients, many of whom can well be cared for in their own homes.

SUMMARY

1. Consideration of the nature of cancer, the difficulties of its accurate diagnosis, and the complexities of modern treatment, lead to the conclusion that the care of cancer patients requires special training.

2. A partial survey and a general review of conditions existing in the United States reveal notable deficiencies in the facilities for diagnosis, special equipment of hospitals, and provision of experience and skill in surgical and radiologic treatment of cancer, many of which can be remedied by better organization of the cancer service.

3. (*a*) The establishment of a limited number of large cancer institutes fully equipped for diagnosis, treatment, research and education of students and specialists is recommended.

(*b*) The establishment of special cancer hospitals when the local conditions are favorable and the material resources are adequate is approved.

(*c*) We particularly recommend the organization of the cancer service in general hospitals with the object of concentrating the control of patients in order to secure better results in diagnosis, treatment and estimation of results.

4. We believe that deficiencies in the laboratory diagnosis of cancer constitute one of the most serious obstacles in the way of efficient service. We recommend that efforts be made to increase the competence of pathologists who undertake to diagnose tumors, and that this work be gradually concentrated in university, hospital or state laboratories which are known to be provided with men of considerable experience in this field of tissue diagnosis.

INCIDENCE OF FOOT RINGWORM AMONG COLLEGE STUDENTS

ITS RELATION TO GYMNASIUM HYGIENE

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A careful survey has been made among the lower classmen at the University of California at Berkeley as part of an intensive piece of research on ringworm of the feet. The data obtained afforded certain conclusions in regard to personal and gymnasium hygiene.

During the physical examination conducted by the university physician for 1928-1929, it was found that the incidence to ringworm of the feet among 3,100 freshmen entrants was 53.3 per cent in men and 15.3 per cent among women, showing that the disease was already common among high school and preparatory school students.

At the terminal period of the spring semester, another survey was made of 1,000 men and 997 women who had been engaged for two semesters in physical education and who had entrée to the showers, swimming pools and apparatus. At the men's and women's gymnasiums it was determined that 78.6 per cent of the men students and 17.3 per cent of the women students had clinical manifestations of ringworm of the feet.

Classification of Involvement

	Men, Per Cent	Women, Per Cent
Slight involvement	35.3	7.2
Definite involvement	22.1	5.6
Moderately severe	12.9	3.9
Severe	8.3	0.6
	78.6	17.3

Among the men, 9.3 per cent had evidence of crural ringworm. This form of groin ringworm may be associated with the foot types, and as a precaution persons should never use a towel on the body that has been used first in drying the feet and should be careful in the wearing of sanitary gymnasium clothing.

On the campus of the University of California the women students occupy the new Hearst Gymnasium, equipped with every known sanitary device. The women students and attendants are obliged to provide and wear rubber bathing shoes, and under no circumstances are they permitted to walk with bare feet on the floors of showers or runways leading to the swimming pools or gymnasiums.

On the other hand, the men occupy an antiquated gymnasium where, on account of the lack or nonuse of bathing shoes and inferior sanitary facilities, the students constantly walk in their bare feet and become infected.

We believe that this single factor has been an important one in controlling the infection, the incidence increasing among the women only 2 per cent, while among the men, on account of the lack of these precautions, it rose 25.3 per cent in the space of one year.

Another reason why women students have less ringworm of the feet is that their habits are cleaner and they observe a much higher type of personal hygiene; they perspire less than men and wear lighter low shoes, which are better ventilated and changed oftener.

It should be the care of every person never to permit the bare feet to touch the floor in any gymnasium, athletic club, shower bath or runway to swimming pools.

UNDULANT (MALTA) FEVER

ISOLATION OF THE BRUCELLA ORGANISM FROM THE STOOLS *

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The first human case of *Brucella abortus* (porcine) infection to be reported was described by Keefer [1] from the Biological Division of the Johns Hopkins Hospital. Cultures of the stools were negative. Because of failure to isolate the organism from the stools in this case, the stools in two other unusual cases of *Brucella* infection to be reported have received scant attention and no positive stool cultures have been described in the numerous cases on record since Keefer's paper appeared.

Organisms of the *Brucella* group have been observed [2] only once in the feces of man but there are no reports of successful cultivation from this source. Bruce [2] states that "they probably pass out of the body by way of the alimentary canal." The organisms have been found frequently in the urine not only in cases of malta fever (10 per cent in 3,000 cases) but also in *Brucella abortus* infection in man. Horrocks [3] and Kennedy [4] observed them in the gallbladder of man. Eyre [5] found micrococci throughout the whole length of the intestine in artificially inoculated rabbits.

Recently a patient [6] was sent to the isolation service of the Johns Hopkins Hospital from Dr. L. F. Barker's clinic with a tentative diagnosis of *Brucella* infection of two years' duration. Positive agglutination tests and blood cultures confirmed the suspicion and attention was directed toward the discovery of the focus. During the first period of observation no focus was found and after vaccine and serum therapy the organisms were not obtained in cultures from the blood and urine. But the fever and other symptoms endured. There were indefinite signs pointing to involvement of the intestinal tract, but cultures of the stools were persistently negative.

It was therefore suggested that the usual methods of isolating the typhoid-dysentery group may not be applicable to *Brucella* infection. A method of concentration by agglutination with specific serum was applied and parallel cultures by this method and by the usual planting on eosin-methylene blue (methylthionine chloride-U. S. P.) plates resulted in the recovery of the organisms from twenty daily consecutive specimens of stools by the former method and completely negative results by the latter. From the stools of a male patient now under observation with a history of onset of

* From the Biological Division, Medical Clinic, Johns Hopkins University and Hospital.

* Presented in abstract in discussion before the Association of American Physicians, May 7, 1929.

1. Keefer, C. S.: Bull. Johns Hopkins Hosp. **35**: 6 (Jan.) 1924.
2. Bruce, David, in Osler's Modern Medicine, ed. 1, Philadelphia **3**: 17.
3. Horrocks, Basset-Smith and Shaw: Mediterranean Fever Rep., part 5, London, 1905-1907.
4. Kennedy, J.: J. Roy. Army Med. Corps, London **2**: 178, 1904.
5. Eyre: Quart. J. Med. **1**: 209, 1907-1908.
6. Berry, G. P., and Brownley, H., to be published.

undulant fever sixteen months ago, a strain corresponding to *Brucella abortus* (porcine) has been isolated. These organisms are apparently identical with those obtained from the blood culture early in his illness.

In 1911 we [7] observed that *B. dysenteriae* agglutinated by specific serum would yield good growth even after several hours' standing. This fact was applied to the isolation of *Brucella* from stools.

METHOD

About 1 Gm. of fresh feces was mixed in 50 cc. of sterile isotonic salt solution and shaken for a few minutes to insure thorough suspension. The suspension was filtered through four layers of number 1 hospital gauze to remove gross particles and centrifugated at half speed for three minutes to thrown down other particles and larger bacteria. To the supernatant suspension, a sufficient amount of immune serum was added to make the total dilution 1:100, and, after shaking, the mixture was placed in a 37 C. water bath for two hours. The suspension was centrifugated at half speed for five minutes and the supernatant fluid discarded.

The precipitate was resuspended in isotonic salt solution, stirred, and centrifugated at the same speed again. The supernatant fluid was again discarded and the procedure repeated twice. Finally the precipitate was spread with a bent glass rod on eosin-methylene blue plates, some of which were incubated at 37 C. aerobically and others in an anaerobic jar containing 10 per cent carbon dioxide.

Large clear colonies appeared after ninety-six hours. These were fished and the organism identified in the usual manner.

ANTISERUM

In twenty experiments the patient's own serum known to agglutinate *Brucella melitensis* strain 428 of the Hygienic Laboratory was used to concentrate the fecal organisms. In sixteen experiments, the polyvalent antimelitensis serum produced by Mulford was employed in a dilution of 1:100 and of 1:300 [8] with equal success.

It is suggested that, in cases from which the organism has not been recovered from the urine or the blood but in which the patient's serum agglutinates members of the *Brucella* group, either the patient's serum or the corresponding polyvalent or monovalent serum be used. On account of the dilution employed, the small amount of preservative may be disregarded.

COMMENT

It is probable that the members of the *Brucella* group occur in large numbers in the stool, but it is well known that growth on artificial mediums is at first slow. For example, the growth in positive blood cultures does not in some cases become apparent until the ninth day of incubation. Obviously, by the usual planting on eosin-methylene blue plates the normal intestinal flora overgrow the *Brucella* organisms. When the organisms are clumped with immune serum, the colonies become apparent earlier than when single organisms are planted.

There is little evidence that *Brucella* infection is spread from man to man by the organisms eliminated in the stools. Yet with a method of isolation of the organisms from the stools it becomes possible to adduce epidemiologic data heretofore unattainable, and the method may be found useful in diagnosis in cases in which no agglutinins are detectable in the serum and the blood culture is negative.

The method, of course, is applicable to the recovery of the typhoid-dysentery group.

CONCLUSIONS

1. *Brucella* organisms have not heretofore been cultivated from human feces intra vitam.

2. By the method described for the isolation of the organisms from feces by agglutination and planting, a *Brucella* strain corresponding immunologically to Hygienic Laboratory strain 428 has been cultivated thirty-six times from the stools of a patient suffering from *Brucella* peritonitis and oophoritis. *Brucella abortus* (porcine) has been isolated from the stools of another patient in the sixteenth month of his infection.

7. Lucas, W. P., and Amoss, H. L.: J. Exper. Med. **13**: 486, 1911.

8. In these experiments, 0.16 cc. of polyvalent preserved serum was added to 50 cc. of stool suspension, instead of 0.5 cc. as in the 1:100 dilution.

ATROPINE HYPERPYREXIA IN EARLY INFANCY

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This report will show that atropine administered to infants in the dose ordinarily used may cause an exceedingly high temperature. There are probably a great many physicians who have noted such a reaction, particularly since atropine has come to be so commonly used in the treatment of infants having pylorospasm or gastro-enterospasm.

The highest temperature due to an atropine reaction that I have witnessed was 109 F. This instance is reported in detail later.

The literature is notably silent concerning such a reaction. White [1] of St. Louis recently reported two cases of atropine fever in infants. The highest temperature that he reported was 104 F. I can add very little to his review of the literature or to his discussion of the possible causes of these reactions. Benzing [2] has reported similar reactions. These instances were not true hyperpyrexias, the highest temperature he noted being 102.6 F.

Atropine hyperpyrexias probably occur more frequently than is realized. In the six cases reported here there was a true hyperpyrexia. Five of the cases were reported to me by the physicians whose names are given, to whom I am indebted for their cooperation. The sixth occurred in my own practice. Some of these were new-born infants who had not yet returned home from the hospital when the reaction occurred. In these instances I reviewed the hospital records. The name of the hospital is included in the respective reports.

REPORT OF CASES

CASE 1.—S. (Evanston Hospital, Dr. Robert Blessing), a normal new-born infant of normal delivery, began projectile vomiting after feedings at 2 days of age. Two days later $\frac{1}{1,000}$ grain of atropine sulphate fifteen minutes before each feeding was ordered. The infant had had about five doses when a severe reaction occurred. The reaction was characterized by marked flushing of the skin of the face and body, irregular respirations, abdominal distention and a rectal temperature of 106 F. This high fever was controlled effectively by hydrotherapy and at the end of twenty-four hours the temperature was normal. The abdominal distention also gradually subsided

1. White, P. J.: Atropine Fever in Early Infancy, Am. J. Dis. Child. **37**: 745 (April) 1929.

2. Benzing, R.: Über Atropinefieber bei Säuglingen, Monatschr. f. Kinderh. **24**: 309 (Jan.-Feb.) 1923.

and had disappeared within twenty-four hours. No atropine was required to control vomiting following this reaction. The infant did not suffer any permanent ill effect.

CASE 2.—J. (home, Dr. Alvah Newcomb), a normal newborn infant, of normal delivery, began vomiting after feedings on the tenth day after birth. Five days later it was started on $\frac{1}{1,000}$ grain of atropine sulphate before feedings. Following the third dose the temperature rose to 105 F. The face and body were markedly flushed, the infant was exceedingly irritable, and the abdomen was markedly distended. Hydrotherapy controlled the fever and an enema partially relieved the distention. A day later the infant was perfectly normal in every way. Atropine was discontinued and vomiting did not recur.

CASE 3.—H. (Evanston Hospital, Dr. Joseph Brennemann), a normal new-born infant, of normal delivery, began vomiting after feedings nine days after birth. Atropine sulphate, $\frac{1}{1,000}$ grain, before feedings only partially controlled the vomiting and the dose was increased to $\frac{1}{500}$ grain. The infant had had four such doses when three hours following the last dose the temperature rose to 106.4 F. The skin was quite flushed, the abdomen greatly distended, and the infant was very fretty and irritable. An enema partially relieved the distention and one hour later the temperature was 102.2, four hours later 100.8, and four hours later normal, where it remained. No atropine was given following this reaction. The infant no longer vomited and had an uneventful feeding course from that time until its discharge from the hospital. It is now 6 months of age and a normal infant.

CASE 4.—K. (home, Dr. Fred Patton, Dr. C. A. Aldrich in consultation), a normal new-born infant, of normal delivery, began vomiting feedings a short time after birth. The baby was given $\frac{1}{1,000}$ grain of atropine sulphate for the first time when about 2 weeks of age. Two hours following the first dose the temperature rose to 107.5 F.; the skin was flushed and the abdomen distended. A cool pack reduced the temperature effectively. The infant was perfectly well the following day. The atropine was not given again, and although regurgitation did not cease entirely it was not severe enough to interfere with normal gaining.

CASE 5.—B. (Evanston Hospital, Dr. C. A. Aldrich), a mongolian idiot, aged 7 days, was given 1 teaspoonful of a solution of 1 grain of atropine sulphate in 2 ounces of water instead of 1 drop as ordered. The infant vomited immediately, but in a short time the temperature rose to 105 F., the skin was markedly flushed, and convulsions occurred. The abdomen was distended. Hydrotherapy controlled the temperature and the convulsions. There were no apparent bad after-effects.

CASE 6.—C. (home, Dr. G. F. Munns), seen at the age of 3 weeks, had vomited after all feedings for about one week. The labor had been normal, and except for the vomiting the infant was perfectly normal but it had not gained weight properly. Atropine sulphate, $\frac{1}{1,000}$ grain, was ordered to be given ten minutes before each feeding. During the next twenty-four hours the vomiting was less, but not well enough controlled and the dose was increased to $\frac{1}{500}$ grain. Two hours following the first dose of $\frac{1}{500}$ grain, the temperature rose to 109 F. The infant was very restless and fretty, and attempted to cry, but could make only a crowing sound. The face was pale and the rest of the body flushed. The abdomen was distended and the general condition was rather alarming. A cool pack and a cold enema reduced the temperature quickly to 104, and the distention was partially relieved. The baby went immediately into a natural sleep and the next morning was perfectly normal in every way except that the abdomen was still slightly distended. The distention passed away quickly. Following this reaction, atropine was discontinued. The infant took and retained feedings, and as late as two months later had not had any recurrence of the vomiting.

COMMENT

These records indicate that atropine in the dose ordinarily administered to infants may cause a severe and alarming temperature reaction. Two of the reactions occurred immediately when the original dose was doubled. It is a common practice to double the original dose if it is not sufficient to relieve symptoms.

The fever was controlled effectively by cool packs, cool sponges, cool enemas or a combination of these. The temperature was normal in each instance within six to twelve hours after the reaction. Hydrotherapy is needed only as an immediate measure for relief. The temperature will decline gradually of its own accord.

Distention of the abdomen occurred in each instance. This I believe to be undoubtedly secondary to a reduction of intestinal smooth muscle tone, the normal reaction to atropine. The distention did not persist more than twenty-four hours in any instance, and in each instance was partially relieved by an enema when administered.

Vomiting did not recur following the reaction in five of the infants, and recurred only slightly in the sixth. None of them received atropine at any time following the reaction. All of the infants were given atropine originally in order to relieve pylorospasm. This phenomenon is food for thought. Is it due to the distention of the bowel and the result of mechanical action alone? Is it produced by something similar to a protein shock reaction? It may have been coincidence. At least it is an interesting subject for investigation.

Three plausible theories for such a marked temperature reaction have been advanced. They are, briefly, (1) that an atropine febrile reaction is due to a direct effect and disturbance of the temperature or heat controlling center in the brain[3]; (2) that the atropine febrile reaction is due to suppression of sweat gland function,[4] and (3) that the reaction is due to a combination of the two preceding possible causes.[5] It is interesting to note in this connection that the fever was quickly reduced by hydrotherapy in all instances. This fact probably does not support one theory more than another.

I believe it is quite unusual for an atropine hyperpyrexia to occur in older babies. No such record is available, nor have I ever heard any person speak of it. All of the instances described in this report occurred in infants 1 month or less of age. I have conducted a clinic for these so-called vagotonic babies at the Children's Memorial Hospital during the past year and have yet to hear of, or see, a hyperpyrexia in any of them. Practically all of these infants were 1 month, or more, of age when first admitted to the clinic. Haas[6] has used quite large doses of atropine (from 1/50 to 1/16 grain) within twenty-four hours and has not reported any hyperpyrexias. My experience is similar. The apparent instability of the heat control center in young infants may explain this difference in the severity of atropine febrile reactions in older and younger infants. Some infants may be particularly sensitive to atropine. It is quite true that a tolerance for the drug is apparently often established, and often gradually increasing amounts are necessary to control symptoms.

CONCLUSIONS

Atropine sulphate in the dose ordinarily administered to young infants may cause a hyperpyrexia. In the instances reported here the lowest temperature was 105 F. and the highest 109 F.

A severe reaction apparently occurs in only very young infants and may occur when an ordinary dose is given.

3. Solis-Cohen, Solomon; and Githens, T. S.: Pharmacotherapeutics, New York, D. Appleton & Co., 1928.
4. Sollmann, Torald: Manual of Pharmacology, ed. 3, Philadelphia, W. B. Saunders Company, 1928.
5. Howell, W. H.: Textbook of Physiology, ed. 7, Philadelphia, W. B. Saunders Company, 1927, p. 938.
6. Haas, S. V.: Congenital Hypertrophic Stenosis and Its Treatment by Atropine, J. A. M. A. **79**: 1314 (Oct. 14) 1922.

The fever is usually controlled easily by hydrotherapy and will gradually decline of its own accord. There are no apparent harmful after-effects.

An atropine hyperpyrexia is usually accompanied by definite abdominal distention. This is probably secondary to a reduction of muscular tone, the normal effect of atropine on intestinal smooth muscle.

In the instances reported here the gastro-enterospasm was apparently relieved permanently by the reaction. At this time I cannot conclusively explain this phenomenon. It was possibly a coincidence.

Atropine sulphate may be safely administered to infants for the relief of pylorospasm or gastro-enterospasm, but the dose should always be increased slowly if one wishes to avoid a reaction.

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CHRONIC PENTOSURIA AND MIGRAINE

A CLINICAL AND CHEMICAL STUDY

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In a previous report [1] of a case of chronic pentosuria and migraine the following facts were noted:

1. The pentose excretion in the specimens of urine (as indicated by daily twelve night hour collections) appeared to be fairly constant and was apparently independent of changes in diet.

2. Amidopyrine, when taken by mouth, markedly increased the urinary pentose.

3. In the course of a series of nonspecific protein (milk) injections, the urinary pentose was once temporarily diminished, and at the same time there was present a marked clinical improvement. Further injections of milk (intradermally) or peptone (intravenously) failed to reproduce the clinical or chemical results.

I therefore undertook to extend these observations and at the same time try another method commonly used in "fever therapy"—the intravenous injection of a typhoid bacillus vaccine. Twelve hour specimens were collected from 7 p. m. to approximately 7 a. m. on the following morning practically daily from Feb. 15 to June 26, 1928. The pentose content was determined by the Sumner [2] method, expressed in terms of dextrose having the same reducing action, and the total nitrogen by the Kjeldahl method.

EFFECT OF CHANGES IN DIET ON THE PENTOSURIA

As illustrated in chart 1, various diets (mixed, high or low carbohydrate, high or low protein, high purine and high fat) produced the expected changes in the excretion of nitrogen, but there were no marked changes in the pentose excretion. The higher pentose excretions occurred mostly on the days when amidopyrine was taken. Undoubtedly, the specimens of March 9 and 10 were also influenced by the large amount of amidopyrine (2 Gm.) taken on March 8, and not by the high fat and protein diet, for the latter was also taken on March 11 without any rise in the output of the urinary pentose. Most observers have failed to find any changes in the pentosuria with variations in the patient's diet, but Janeway [3] and Cammidge and Howard [4] report an increased excretion of pentose when their patients were placed on high protein or purine diets.

EFFECT OF AMIDOPYRINE INTAKE ON THE PENTOSE EXCRETION

As shown in the accompanying charts, there was a marked rise in the excretion of pentose when the patient took amidopyrine. Thus, on February 28 the patient took 1.3 Gm. of amidopyrine, and the pentose output rose to 3.8 Gm., while on March 8, when 2 Gm. was taken, the pentose output was much higher (6.87 Gm.). It would seem, therefore, that the increase in the pentosuria varies directly with the amount of amidopyrine ingested. As the patient had a severe migraine attack on these days, it appeared desirable to observe the effect of amidopyrine on a relatively good day.

May 13, the patient felt well; she had no headache on that day nor had she had any on the six preceding days. The level of the pentose output on the six preceding days was below 1.5 Gm. Thus, May 13, 1 Gm. of amidopyrine was taken by the patient, and again the pentose output rose sharply to 4.84 Gm. That this

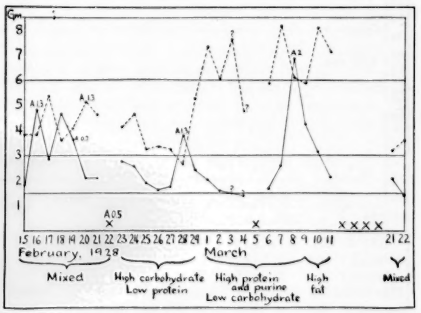

Chart 1.—Effect of diets on the pentosuria: solid line, pentose; broken line, total nitrogen; *A*, amidopyrine ingestion in grams; *X*, no specimen obtained; ?, incomplete specimen.

increase in the reducing power of the urine was due to urinary pentose (*d*-xyloketose [5]), and not dextrose, combined glycuronates or other pentoses, was shown by the more markedly positive Bial tests, the negative fermentation tests, the melting points of the phenylosazone (from 155 to 157 C.), and its rotation (+0.20 degree) of polarized light. When this phenylosazone was mixed with an equal quantity of *l*-xylosazone and recrystallized, the melting point of the mixture was raised to 200-202 C. Hence, the pentose appears to be *d*-xyloketose, as was first found by Levene and LaForge.[6] In addition, as described elsewhere,[1] eleven persons (five apparently normal, five with migraine and one with acromegaly) showed no such increase in the reducing powers of the urine when they ingested 1.3 Gm. of amidopyrine daily from one to three days. To date, I have examined the urine of more than 100

1. Margolis, J. I.: Chronic Pentosuria and Migraine, Am. J. M. Sc. **177**: 348 (March) 1929.
2. Sumner, J. B.: J. Biol. Chem. **65**: 393 (Sept.) 1925.
3. Janeway, T. C.: Essential Pentosuria in Two Brothers, Am. J. M. Sc. **132**: 423, 1906.
4. Cammidge, P. J., and Howard, H. A. N.: Seven Cases of Essential Pentosuria, Brit. M. J. **2**: 777 (Nov. 20) 1920.
5. The identification of the pentose as *d*-xyloketose was made by Dr. Isidor Greenwald, and the determination of nitrogen and pentose was made by Dr. Joseph Gross.
6. Levene, P. A., and LaForge, F. B.: Note on a Case of Pentosuria, J. Biol. Chem. **18**: 319, 1914.

patients who had ingested amidopyrine (including eight cases of diabetes mellitus and seventeen of migraine) and in no instance was there as marked an increase in the reducing power of the urine as in the case of chronic pentosuria. Bial's test was negative in all specimens of urine, and even in the more concentrated specimens a definite test for phenylosazone was not obtained. This specific response to the ingestion of amidopyrine may therefore possibly be of use as a provocative test in cases of chronic pentosuria.

INTRAVENOUS INJECTIONS OF A TYPHOID BACILLUS VACCINE

Effect on the Pentosuria.—As indicated in chart 2, seventeen injections of increasing doses of a typhoid bacillus vaccine were given. The average daily pentose output in the period prior to the first injection (from February 15 to March 22) was 2 Gm. This result was derived by averaging the excretions on thirteen days and omitting eleven days, because the higher excretions (above 2 Gm.) may have been produced by the ingestion of amidopyrine on the same

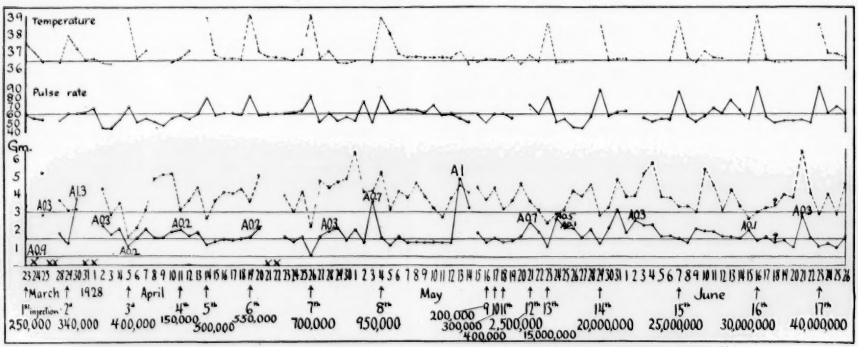

Chart 2.—Effect of intravenous injections of a typhoid bacillus vaccine on the urinary pentose and total nitrogen: solid line, pentose; broken line, total nitrogen; temperature and pulse rate are the average forenoon and afternoon readings except on days of injection, when the highest point reached is indicated; *A*, amidopyrine ingestion in grains; *X*, no specimen obtained; *?*, incomplete specimen.

relatively but not entirely well, the higher values (pulse 56, temperature 36.5 C., or 97.9 F.) were present. A good clinical result could thus be determined in the following manner:

1. Positive objective symptoms lasting for two or more consecutive days after an injection: (*a*) a persistent rise in temperature to 36.6 C. (98 F.) or above; (*b*) a persistent rise in the pulse rate to 60 a minute or above, and (*c*) an absence of miosis.

2. Positive subjective symptoms lasting for two or more consecutive days after an injection: (*a*) entire absence of headache (mild or severe); (*b*) increased energy and capacity for work; (*c*) sense of well being with absence of any other nervous manifestations, and (*d*) avoidance of intake of sedative medication.

Of the seventeen injections, six failed to give a general reaction, and there were no apparent clinical changes. There were therefore eleven injections that produced severe general reactions, such as chill, fever, sore throat, headache and backache, within from two to three hours after the injection. Of these eleven injections, four failed to produce a good clinical result with or the previous day. March 10 was also discarded, as the amount (2 Gm.) of amidopyrine ingested on March 8 was perhaps large enough to produce the higher pentose output on this day. When the same method was applied to the period when the injections were given (from March 23 to June 26), a daily average of 1.55 Gm. of pentose was obtained. Exclusive of the seventeen days of injections (when the average output of pentose for fifteen days was 1.32 Gm. and after the omission of two days on account of amidopyrine intake), there was daily average of 1.64 Gm. Thus, there seems to have been little or no effect on the pentosuria during this series of injections.

EFFECT ON THE CLINICAL PICTURE

As noted elsewhere, in addition to the frequent attacks of migraine the patient showed a persistent bradycardia (from 44 to 56 a minute), a hypothermia (from 36 to 36.6 C. by mouth or 96.8 to 98 F.), and a miosis. These observations are not uncommon in other patients with migraine, and they have persisted in this patient to date (a period of observation of two years). As a rule the lower levels obtained during an attack, while between severe attacks of migraine, with the patient negative objective and subjective observations. Of the remaining seven, five gave a positive clinical result lasting from three to eight consecutive days, while two gave a positive clinical result lasting more than two days for the objective and four days for the subjective observations. Thus, a therapeutic method is dealt with here which is apparently not permanent. This transitory effect of nonspecific protein injections in migraine, and in other so-called allergic diseases, has been stressed recently by Miller [7] and others.

CORRELATION OF THE CLINICAL AND CHEMICAL OBSERVATIONS

As has been stated, of the seventeen intravenous injections, eleven produced a severe general reaction while six did not. The daily average output of pentose on these eleven days was 1.18 Gm., and when two days with excretions of 1.62 Gm. are excluded because of the effect of amidopyrine ingestion, the daily average for the nine days when injections were given was 1.07 Gm. On the other hand, the average for four of the six ineffective days when injections were given (with two excluded on account of amidopyrine intake)

7. Miller, J. L.: Nonspecific Therapy, Medicine **6**: 513 (Dec.) 1927.

was 1.46 Gm. Thus, it would seem that the marked drop in the pentosuria depended on the production of a severe general reaction. It is interesting to note that von Jaksch [8] found an increased utilization of pentoses by the body in nonpentosuric patients with fevers. However, there is possibly a better explanation for this reduction in the urinary pentose. As indicated in chart 2, there was a marked drop in the total nitrogen output on three days of injections, and to a lesser extent on three others. This was noticeable particularly on April 5, April 26 and May 23, when the nitrogen output was 1.66, 2.24 and 2.47 Gm., respectively, while on April 14, May 29 and June 23 the total nitrogen output was less markedly reduced to 2.68, 2.77 and 2.90 Gm., respectively. There were no appreciable changes in the nitrogen excretion on the six days of ineffective injections or on the other five days when the general reactions were severe. It may therefore be that the drop in the pentose output merely followed a drop in the general metabolism which was induced by the injections. This drop in the total nitrogen was not obtained in four control patients (two with migraine, one with multiple sclerosis and one with chronic cachexia of unknown etiology), who received similar intravenous injections with the production of severe general reactions in each case. It is also worthy to note that the curves of the pentose and total nitrogen excretions ran parallel to each other on some days as is shown in chart 2 from May 26 to June 9, and from June 19 to June 26. This was first observed by Klercker,[9] who showed that the curves of the hourly output of pentose and of the total nitrogen in the urine ran parallel to each other. It should, however, be noted that the lowest levels of pentose output curiously enough coincided with the periods of the best and longest clinical results. These were obtained after the eighth and seventeenth injections (chart 2). In addition, while the average output of pentose was not markedly lowered during this series of injections, there were more days of low pentose excretion (below 1.5 Gm.) during this period than in the preceding control period.

The positive, though temporary, clinical results obtained with the intravenous injections of a typhoid bacillus vaccine contrast rather strikingly with the failure to obtain any results with intravenous injections of 5 per cent peptone as described elsewhere.[1] Then, too, there were no demonstrable changes in the concentration of pentose in the specimens of urine collected during that period, and at the same time no general reactions took place. At the present time, I am unable to state definitely that there is an increase of the pentose excretion on the days of severe headaches, as a sufficient number of such days with the patient abstaining from the ingestion of amidopyrine could not be observed. This problem I hope to undertake in the future.

CONCLUSIONS

1. Changes in diet did not appreciably affect the pentosuria in the case reported here.

2. Ingestion of amidopyrine markedly increased the output of pentose in the urine in direct proportion to the amount ingested.

3. As no such occurrence was demonstrated in more than 100 normal and sick persons (including some with glycosurias), this effect of amidopyrine may possibly be utilized as a provocative test for chronic pentosuria.

4. Intravenous injections of a typhoid bacillus vaccine caused a marked drop in the pentose and the nitrogen output in the urine on the same day, provided a severe general reaction took place.

5. During this entire series of injections, there was little or no change in the average output of pentose. However, there were certain periods when the excretion of pentose was somewhat lower than had been previously present. These, curiously, coincided with the periods of temporary objective and subjective clinical improvement.

911 Park Avenue.

8. von Jaksch, R.: Alimentary Pentosuria, Ztschr. f. Heilkunde **20**: 195, 1899.
9. af Klercker, K. O.: Studien über die Pentosurie, Stockholm, 1914.

ARSPHENAMINIZED SERUM THERAPY OF CEREBROSPINAL SYPHILIS

REPORT OF ONE HUNDRED CASES

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My primary purpose in presenting this report is to combat in some degree the unfavorable impression which some general practitioners seem to have gained with regard to intraspinal therapy in the treatment of cerebrospinal syphilis. This unfavorable impression I believe is caused by the confusion arising from the different forms of intraspinal therapy advocated, as well as the varied and modified technics employed. The Swift-Ellis treatment was employed in this series of 100 cases without modification.

The object of this series was to note the influence of arsphenaminized serum therapy on the spinal fluid Wassermann reaction of 100 patients, suffering from cerebrospinal syphilis, whose spinal fluid Wassermann reaction had not been disturbed by two intensive courses of arsphenamine administered intravenously. The patients were given a diagnostic spinal puncture on admission, and only cases showing a positive Wassermann reaction in all dilutions and a negative paretic curve were admitted to this series. Those manifesting clinical evidence of paresis were immediately rejected. Those admitted were given two courses of intravenous injections of arsphenamine, with bismuth salicylate intramuscularly. Each course consisted of twelve arsphenamine injections of 0.5 Gm. each, given at five day intervals, and twelve bismuth salicylate injections of 0.1 Gm. each, also given at five day intervals. A rest period of six weeks was given between courses. Iodides were administered during treatment and the rest period in increasing dosage. After completion of both courses a rest period of six weeks was again permitted and the spinal puncture was repeated. Only those patients still showing a positive spinal fluid Wassermann reaction in all dilutions were retained for this series. It is interesting to note here that only seventeen cases were rejected because of the negative reaction in all dilutions or faintly positive in one or two dilutions, after the two intensive courses of antisyphilitic treatment. Twelve were rejected because the gold curve was a paretic one following treatment. One patient died of pneumonia during the rest period between courses of intravenous therapy. Therefore 130 patients were required to complete this series of 100 cases. Thirty were rejected for reasons stated.

Each of the remaining 100 patients was given intraspinal serum therapy at weekly intervals for six weeks.

They were then given a six weeks' rest period, at the conclusion of which they again received six weekly intraspinal injections. Iodides were administered orally in increasing dosage during treatment and the rest period.

The intraspinal treatment was given by administering 0.75 Gm. of neoarsphenamine intravenously, and five minutes later 50 cc. of blood was withdrawn from the patient by the open method of introducing an 18 gage needle into a convenient vein. Blood was then kept at room temperature for one hour to permit clotting, after which the clot was freed from the sides of the tube or container with a platinum wire. It was then placed in the refrigerator for twenty hours, after which 15 cc. of serum was removed by pipet. If the serum was clear or straw colored and apparently contained no red blood cells, it was not centrifugated. It was seldom necessary to centrifugate serums if care was taken during pipeting. The serum obtained was then inactivated for thirty minutes in an oil bath at 57 C., after which it was cooled to room temperature. Spinal puncture was then performed with a 20 gage spinal needle, after which the 15 cc. of serum was introduced by the gravity method. A glass adapter with rubber tubing connection to a 30 cc. Luer syringe with the plunger removed makes an ideal gravity apparatus. After introduction of the spinal needle, the stylet was removed and 12 cc. of spinal fluid collected for examination. The glass adapter was then attached to the needle and by holding the syringe below the level of the needle the spinal fluid was permitted to escape into the syringe, forcing the air from the tubing. When approximately 10 cc. of fluid had collected in the syringe, the 15 cc. of serum was added and the syringe was then raised to a height approximately 12 inches (30 cc.) above the needle and the serum slowly entered the spinal canal. Patients with greatly increased spinal fluid pressure denoting meningeal irritation were not given intraspinal therapy; drainage was done, and treatment was continued when the pressure was reduced. Following treatment, patients were put to bed for twenty-four hours with the foot of the bed elevated. The Wassermann reactions of the spinal fluid collected at the time of the last intraspinal treatment was used for this report.

RESULTS

Of the 100 patients that received two courses of intraspinal therapy, twenty-eight had negative spinal fluid Wassermann reactions in all dilutions, on completion of all treatment, thirty-four had distinct reduction, there was slight reduction in nineteen, and in the remaining nineteen there was no change.

Although space precludes my discussing clinical and symptomatic improvement, I wish to state that only nine patients failed to show clinical and symptomatic improvement. The remaining ninety-one patients were distinctly improved. None of the patients objected to intraspinal therapy but, on the contrary, were enthusiastic and cooperated to the fullest extent. There was not an instance of a severe reaction following or during treatment. It is evident that intravenous therapy influenced the spinal fluid Wassermann reaction in only a small group of patients, but the spinal fluid Wassermann reaction was distinctly influenced by intraspinal therapy.

CONCLUSIONS

Intravenous therapy was efficacious in a very small group of patients in this series. Intraspinal serum therapy, as outlined, seems to offer patients suffering from cerebrospinal syphilis relief from both a serologic and a clinical point of view. Intraspinal serum therapy as outlined is a safe procedure and, when properly performed, is not objectionable to patients.

AQUEOUS EXTRACT OF LIVER

DEVELOPMENT AND USE IN TREATMENT OF PERNICIOUS ANEMIA*

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The enthusiasm of the medical profession of the entire world was aroused by the original publication of Minot and Murphy [1] on the brilliant results obtained by feeding liver in the treatment of pernicious anemia. Time has not lessened this enthusiasm; for one is safe in saying that no therapeutic procedure has ever had such universal reports of a consistently favorable character. The development of this therapeutic agency with an accurate description of its use and its limitations is most impressive and will stand as one of the notable achievements in the annals of modern medicine. Any work on this subject done by others can be nothing more than a supplement to that of these pioneers.

We at once became interested in this work and, following the original procedure described, used whole liver with strikingly consistent results. No less consistent, however, was the difficulty encountered in maintaining an adequate amount of whole liver in the daily diet of patients who tire of liver feeding to such a degree that it is practically impossible to persuade them to continue its use as a food; while patients living in small towns and rural sections are totally unable to obtain with any degree of regularity an adequate supply of liver. It was obvious to us that there must be developed some type of concentrated and standardized liver extract. Because of this vital need and following the statement of Cohn and his co-workers [2] that the active principle in liver effective in pernicious anemia is water soluble, we started the development of a water soluble extract. The outgrowth of our effort is the aqueous extract E. 29,[3] so standardized that 30 cm., or 1 ounce, represents the water soluble substance from approximately 210 Gm. of raw liver. The process has been so standardized that the fraction represented in E. 29 can be duplicated with reasonable consistency both in the amount of liver represented per cubic centimeter and in the effective substance active in producing a prompt and consistent reticulocyte response in patients with pernicious anemia. The substance has been subjected to varying temperatures and humidity over a period of thirteen months and it has not given any evidence of deterioration either in potency or in physical qualities. No attempt has been made to modify the physical characteristics of the solution other than to

* From the Department of Medicine and Biochemistry, Medical College of Virginia.

1. Minot, G. R., and Murphy, W. P.: Treatment of Pernicious Anemia by a Special Diet, J. A. M. A. **87**: 470 (Aug. 14) 1926.

2. Cohn, E. J.; Minot, G. R.; Fulton, J. F.; Ulrichs, H. F.; Sargent, F. C.; Weare, J. H., and Murphy, W. P.: The Nature of the Material in Liver Effective in Pernicious Anemia, J. Biol. Chem. **74**: lxix (July) 1927.

3. Liver extract E. 29 has been developed by the Department of Medicine and Biochemistry of the Medical College of Virginia, Richmond.

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reduce its volume to a point at which it is sufficiently concentrated to be practical in clinical use. We have contented ourselves with a substance that may justly be characterized as a crude extract, with a view to simplicity in production of the potent fraction.

TEST OF POTENCY

Minot and his co-workers [4] have definitely established the fact that the most reliable method of testing the presence of the effective material in an extract is to study the reticulocyte response in pernicious anemia patients with erythrocyte counts of 1.5 million or less per cubic millimeter. We have adhered to the principles outlined by these observers and have found that the data obtained by this method are as consistent as may be expected with any method subject to variations inherent in a technic which of necessity has deficiencies common to purely clinical evaluation of complex biologic substances. The response of the reticulocytes, when adequate amounts of the extract E. 29 have been used, has been prompt and consistent. The rise is rapid, beginning on an average on the fourth day and with definite regularity reaching the maximum level from the seventh to the ninth day, finding a level of from 1 to 3 per cent, when the erythrocyte count has risen to 2.7 or 3 million per cubic millimeter.

At the beginning of this work it was noted that the point of the maximum reticulocyte response in those patients receiving an amount of extract adequate to produce a prompt and rapid erythrocyte maturation was very variable, although the cases were clinically similar, as indicated by the hemoglobin percentage and erythrocyte count. It has been generally conceded that this variation is an index to the concentration of effective material or to the extent of megaloblastic hyperplasia of the bone marrow, but we felt that the maximum height of the number of reticulocytes circulating in the peripheral blood was transient, particularly if the material used therapeutically was of high potency. This we have shown to be true, for if reticulocyte counts are done at frequent intervals during the period of maximum erythrocyte response there is found a marked variation over brief periods and the maximum percentage of reticulocytes is maintained for only a few hours. There is at times a difference of as much as 18 per cent during a period of twenty-four hours and frequently from 6 to 11 per cent in four hour intervals. (The details of these variations are given in a report about to be published).[5] The rapid disappearance of reticulocytes does not occur in all cases, for we have observed prolonged high percentages even when adequate amounts of the effective substance were being administered; but if the reticulocyte response is to be used as an index to potency and in establishing the amount necessary for therapeutic use, the rapid disappearance of the reticulocytes from the peripheral blood in many cases is a factor that must be anticipated by four hour counts to escape the erroneous impression gained from less frequent observations.

MATERIAL STUDIED AND RESULTS

A sufficient number of patients have been studied by Minot and Murphy and their co-workers to yield results of great variety, so that many basic observations are available for those attempting to evaluate the therapeutic usefulness of an untested extract.

Forty-five patients with pernicious anemia have been studied by us and at four other clinics, liver extract E. 29 being used. The routine amount administered has been 30 cc. three times a day, except in a group of fifteen patients who received only 15 cc. three times a day. The latter group enabled us to compare the results from varying dosages.

The highest reticulocyte response in those patients having an erythrocyte count of 1.5 million per cubic millimeter or less and receiving 90 cc. of extract a day was 49.2 per cent. The lowest reticulocyte response was 11 per cent. In the group receiving 45 cc. of extract a day the highest reticulocyte response was 32.4 per cent and the lowest reticulocyte response was 9.2 per cent.

Chart 1 represents reticulocyte percentages in fifteen unselected patients with anemias of 2.5 million per cubic millimeter or less and receiving 90 cc. of extract E. 29 each day. The curves are drawn from data derived from daily counts. One is impressed by the marked variability in the percentage of reticulocytes in anemias of relatively the same degree of severity.

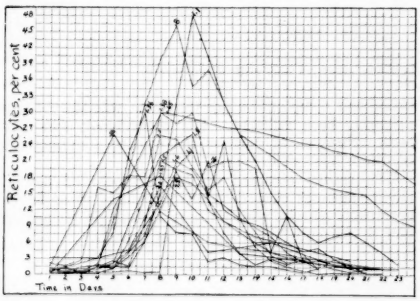

Chart 1.—Reticulocyte percentages in fifteen patients with anemias of 2.5 million per cubic millimeter or less and receiving 90 cc. of liver extract E. 29 a day. Numbers on graphs denote erythrocyte level in millions at the beginning of treatment.

We have shown that one factor in explaining this variability is the marked change in the number of reticulocytes in the circulating blood at different hours of the day; however, the total volume of hyperplastic bone marrow in different patients even with the same degree of anemia manifestly is a major factor. The average increase of erythrocytes for a period of four weeks, when 90 cc. of liver extract a day was used in an anemia of 2 million per cubic millimeter or less, was 1.98 million per cubic millimeter. The largest increase was 3.2 million per cubic millimeter and the smallest was 1.35 million per cubic millimeter.

In the group receiving 45 cc. a day the average increase of erythrocytes for a period of four weeks was 1.64 million per cubic millimeter. The largest increase was 2.28 million and the smallest was 1.1 million per cubic millimeter.

The response has been similar in every detail to that obtained with whole liver, except that it is more prompt and rapid because it is practicable to administer quantities of effective material representing larger amounts of liver than patients can or will take. The hemoglobin has risen proportionately with the rapidly increasing

4. Minot, G. R.; Cohn, E. J.; Murphy, W. P., and Lawson, H. A.: The Treatment of Pernicious Anemia with Liver Extract: Effect upon the Production of Immature and Mature Red Blood Corpuscles, Am. J. M. Sc. **175**: 599 (May) 1928. Minot, G. R.; Murphy, W. P., and Stetson, R. P.: The Response of the Reticulocytes to Liver Therapy: Particularly in Pernicious Anemia, ibid. **175**: 581 (May) 1928.

5. Porter, W. B., and Irving, Hazlewood: Reticulocytosis Produced by Liver Extract: Two, Three and Four Hour Interval Observations, to be published.

erythrocytes, suggesting that this aqueous extract contains not only the substance responsible for erythrocyte maturation but also those substances necessary for the promotion of hemoglobin store. Charts 2 and 3 represent each fifteen average hemoglobin and erythrocyte responses.

The only untoward result has been a tendency on the part of two patients toward the development of a temporary diarrhea, though patients having diarrhea as a

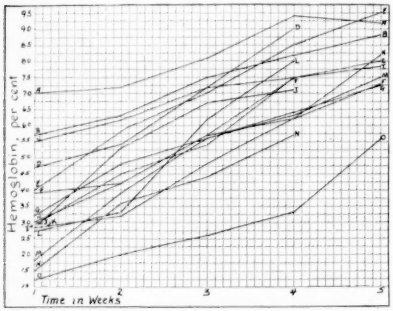

Chart 2.—Hemoglobin response to 90 cc. of liver extract E. 29 a day in fifteen unselected cases of pernicious anemia.

prominent symptom before treatment was started have promptly been relieved. The latter result may have been influenced in part by the routine administration of dilute hydrochloric acid.

The results obtained in the treatment of patients having anemias classed as secondary and those having pernicious anemia with striking neurologic phenomena will be presented in a subsequent report.

THERAPEUTIC DOSAGE

The recent observations made on addisonian anemia would suggest that there is a deficiency in these patients of an element necessary for the maturation of the primitive erythroblast found in great abundance in the bone marrow and would show that this element can be supplied by the oral administration of liver or liver fractions. We infer that normally this unidentified material must be maintained at a definite concentration to the end that erythrogenesis keep pace with physiologic blood destruction, thereby maintaining a relatively constant volume of the formed elements in the blood. In consideration of the amount of effective material adequate for the control of the anemia of pernicious anemia, one must assume that a definite concentration in the body tissues and fluids is necessary for prompt results and that the amount which will *restore* the blood to a normal state must be greater than that essential to *maintain* normal blood. It is reasonable to assume that the factor operating in the production of pernicious anemia varies in degree, for one is impressed by the marked difference in the clinical course of patients having this disease. In some instances the progress of the disease is very rapid; in others it is peculiarly chronic. This variability in the clinical course of pernicious anemia suggests that there may be lacking in different patients a varying quantity of that element necessary for normal bone marrow function. This perhaps parallels the varying deficiency of insulin in diabetes, which explains the irregular course of that disease.

It is well recognized that the bone marrow in this type of anemia undergoes intense erythroblastic reaction, and histologic examination proves that its substance consists of enormous numbers of nucleated red corpuscles, many being of Ehrlich's "gigantoblast" type, together with numerous colorless cells of the myelocyte type. This finding is based in the majority of cases on the examination of only a small portion of the bone, usually the upper part of the shaft of the femur or sternum. It is often mistakenly assumed that this hyperplasia exists throughout the whole substance of the bone marrow. Sheard,[6] Tidy,[7] Archibald[8] and others have shown that when extensive examination of the bone marrow was made, uniform hyperplasia did not exist. Whereas certain areas show marked erythroblastic hyperplasia, others were unmistakably aplastic. The state of bone marrow varies, therefore, in anemias of different degree, and the total volume of hyperplastic marrow may be very different in patients with the same degree of anemia. There is no clinical method of estimating this factor, which manifestly is vital in the final consideration of therapeutic dosage.

These aspects of the problem have been discussed to emphasize our belief that in the treatment of patients having addisonian anemia it must be realized that all standards are based on purely clinical observations and that one is not justified in administering to patients any substance the nature of which is uncertain, except under conditions allowing observation of the progress of their disease.

We have found that 90 cc. of E. 29 represents the average therapeutic daily dose, and that one may with confidence use this amount in the control of the anemia of pernicious anemia. This should be divided into three feedings and administered at the end of the meal

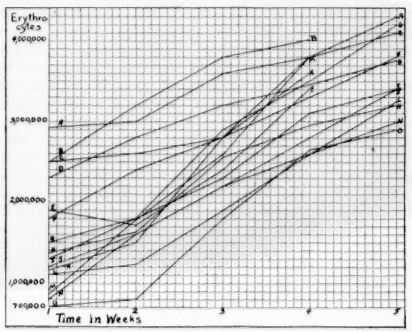

Chart 3.—Erythrocyte response in the cases represented in chart 2.

with the use of orange juice, ginger ale or chocolate to modify the taste, or as a broth with the meal. This amount has consistently produced a prompt reticulocyte rise and has increased the erythrocyte count on an average of 1.98 million per cubic millimeter in twenty-eight days, when the erythrocyte count was 1.5 million per cubic millimeter or less at the time feeding was started.

6. Sheard, Arthur: Pernicious Anemia and Aplastic Anemia, New York, William Wood & Co., 1925, p. 23.
7. Tidy: Brit. M. J. 2:979, 1922.
8. Archibald, A.: M. Clin. North America 3:757 (Nov.) 1919.

Larger dosage has not improved the results obtained, whereas an analysis of the group of fifteen patients receiving only 45 cc. a day shows that the results are quite satisfactory. Eight of these have been followed for a period of two months or longer and erythrocyte counts of at least 4.5 million per cubic millimeter have been obtained.

The important question of the amount of extract necessary to *maintain* a normal blood count cannot be fully answered at this time. We are positive that it is not desirable to give an excess amount, for a definite degree of polycythemia is thus frequently produced; whereas the gravest danger from an insufficient amount of extract is the development of acute spinal cord changes, even while the blood is being maintained well within normal limits. Our rule has been to reduce the daily amount from 90 cc. to 60 cc. when the erythrocyte count reaches 4.5 million per cubic millimeter, and if the count tends to increase above this level we reduce the daily quantity to 30 cc. Our practice is to advise patients to have blood counts done every four weeks. This follow-up system enables one to vary the maintenance dose in keeping with the individual indications.

SUMMARY

1. We have been able to produce an aqueous extract of liver which is potent and remains constant when subjected to those conditions common to therapeutic material in ordinary usage.

2. In the evaluation of the potency of an extract, the reticulocyte response is useful only when counts are done at frequent intervals.

3. Forty-five patients having pernicious anemia have been studied to determine the effect of liver extract E. 29. The average erythrocyte increase for a period of twenty-eight days in anemia of 1.5 million per cubic millimeter or less when 90 cc. a day was used was 1.98 million per cubic millimeter. The average increase was 1.64 million per cubic millimeter with the administration of 45 cc. a day.

4. We feel that patients with similar degrees of anemia require varying amounts of the effective material found in liver, and the maintenance dose must be regulated in keeping with the individual requirement.

Ophthalmology and the Modern Hospital.—Ophthalmology is one of the oldest of the specialties, and by reason of this comparative antiquity should have gone far on the road toward the goal, namely, a reaching out in the direction of scientific exactitude; and indeed its progress has been such as to keep it in the vanguard of medical advancement. Yet ophthalmology has suffered a definite loss of scope by reason of the isolation of many of its followers, who, through keen enthusiasm for their work, have found themselves cut off from their fellows in other fields. With the development of the modern hospital idea, ophthalmology has been forced to take some hard knocks but has managed to survive. We have seen the eye department of a large general hospital struggling for its very existence in some dark corner; then, as a later development, it has emerged and begun life on its own responsibility as a separate special hospital; but last and best of all, the modern special hospital has been shepherded back into the fold and is developing as a dignified department, as secure from invasion as any other division of the large general hospital. Each of these moves represents a definite stride forward in the development of medicine in general and surely depicts a tendency, which we applaud, to assemble all the different branches of medicine as units functioning together in such manner as to bring results otherwise impossible of achievement.—Blair, W. W.: Problems in Diagnosis from the Standpoint of the Ophthalmologist, *Pennsylvania M. J.*, May, 1929.

POLYARTHRITIS

FURTHER STUDIES ON THE EFFECTS OF SYMPATHETIC GANGLIONECTOMY AND RAMISECTOMY *

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AND
ALFRED W. ADSON, M.D.
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In March, 1927, we reported the early results of lumbar sympathetic ganglionectomy and ramisectomy in a case of polyarthritis of the lower extremities in a young woman, a stenographer by occupation. The case was one of apparently hopeless arthritis deformans involving all the joints of the upper and lower extremities; the condition had persisted for six years and had resisted all forms of medical management. The extremities were cold and clammy, were bathed in sweat, were mottled and cyanotic in appearance, and exhibited marked swelling about the joints. Changes ordinarily considered trophic were very marked: atrophy of the muscles, thin, shiny skin, and ridged, thin, brittle and pitted nails. Bilateral lumbar ganglionectomy was performed by one of us (Adson) in June, 1926. There was immediate and complete disappearance of all signs and symptoms of arthritis in the lower extremities.

The patient was sent home, but returned in October, 1928, at which time she reported that she had experienced a complete cure of the arthritis in her legs. The word "cozy," she said, described her sensations from the waist down during the two and a half years intervening since operation. The legs had been comfortable throughout the whole period, with a pleasant sensation of warmth. She had had no pain, no tenderness, no redness and no swelling of the joints concerned, although at times she had noticed a little tendency to puffiness of the soft tissues, especially about the ankles. In her home town in northern Canada she had walked to and from work throughout the cold winters without at any time experiencing even a suggestion of a recurrence of the arthritis. On the other hand, throughout this entire period she had suffered extreme discomfort in all the joints in both upper extremities. The arthritis had relentlessly pursued its disabling and crippling course until she had been reduced to the necessity of doing all her typewriting with one finger. She stated that after the first operation she had gone back to work three days after arriving home, had worked steadily for more than a year and then, as the result of continuous pain in the joints of the arm, had had a nervous breakdown for which she had been sent to California. She had returned to work in February, 1928, and had worked every day until she had left for Rochester.

During the two years previous to her second visit to the clinic, she had noted some dyspnea on exertion and had had difficulty in walking up hills. However, she had found it easier to go upstairs than down. She had become somewhat dizzy on turning suddenly and there had been some tendency to tremor of the lips, especially of the upper lip, during periods of stress and strain. The condition of the shoulders, elbows and hands had been constantly growing worse. She stated that she has not had a good night's sleep in three months because of continuous pain in the joints of the upper

* From the Division of Medicine and the Section on Neurologic Surgery, the Mayo Clinic.

extremities. This pain always had been present but underwent acute exacerbations with every storm. The limitation in motion in all the involved joints had become decidedly more marked and there was some contraction deformity of the ring finger on the right hand; at times, it became locked. Because of the marked progress of the disease in the upper extremities she had returned to Rochester with considerable joy

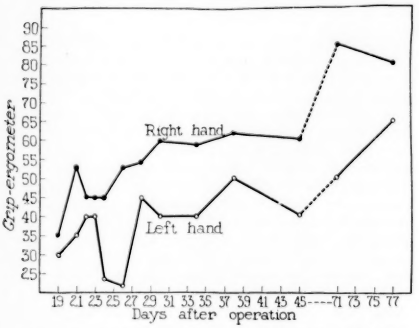

Fig. 1.—Increase in strength of grip of hands as determined by the gripergometer.

when the possibility of cervicothoracic sympathetic ganglionectomy had been suggested to her.

The patient was up and around the clinic and hospital, and active on her feet, walking everywhere without discomfort. Her weight was 112 pounds (51 Kg.) and the blood pressure 122 systolic and 87 diastolic in millimeters of mercury. On general examination it was not apparent that changes had taken place since her last visit, except in the extremities. In the hands, the arthritic process had progressed. The hands were now typical of an advanced stage of arthritis deformans. There was considerable swelling of the metacarpal, phalangeal and interphalangeal joints of the fingers, especially of the proximal row, and there was atrophy of the intrinsic muscles of the hands. There was beginning ulnar deflexion of the hands and fingers. The hands were extremely cold, especially the fingers, and the palms were continuously wet with perspiration, so that the patient was constantly drying them with her handkerchief. A fine film of moisture suggestive of dew almost always could be observed over the palms. There was cyanosis from the transverse lines down into the fingers. The hands were cold and clammy and were bathed in sweat. She had no grip in either hand. The fingers felt like useless appendages rather than purposeful or useful organs. The fingers also imparted a breastlike or lipomatous sensation to the palpating hand. There was a contraction deformity of the ring finger on the right hand. When the hands were raised toward the chin, there was considerable ulnar deflection and the fingers dangled. When she attempted to raise the hands and spread the fingers, there was coarse, marked tremor. She was unable to make a firm fist with either hand. In the upper part of the arms there was evidence of loss of subcutaneous tissue, and the muscles lacked tone. She insisted that part of her inability to raise her arms was due to shear muscular weakness and not to limitation occasioned within the joint. Movement was decidedly limited in the fingers, wrists, elbows and shoulders and resulted in distinct pain. The skin of the arms seemed atrophic and shiny in appearance.

By contrast, the lower extremities were now shapely and firm, with abundant subcutaneous tissue. Their appearance did not suggest arthritis in the least. There was no pain on movement. With her shoes on, she could walk on either her heels or her toes. There was bilateral pes planus. Slight grating in the knees and the left ankle remained; however, it was not accompanied by pain. The toe nails appeared normal, the feet were warm and dry, and the skin was normal in appearance and texture. It was difficult to believe that she had ever had any arthritis in her legs.

In view of the satisfactory results obtained from bilateral lumbar ganglionectomy, we felt justified in advising a similar procedure for the upper extremities, and one of us (Adson) performed bilateral cervicothoracic ganglionectomy, Nov. 23, 1928. At this time the lower cervical, and the first and second thoracic sympathetic ganglions, along with the intervening trunk on both sides, were completely removed through the dorsal mediastinal approach. The operation has been described in previous papers.[1]

Immediately following the operation the patient's hands became dry and warm, and presented a normal, pink color. She noticed immediately that she could make a fist and grip a visitor's hand. She experienced very severe burning pain at the operative site over a period of several weeks. This was probably due to operative trauma to the intercostal nerves. Hyperesthesia developed over the inner aspects of both arms and about the lower and inner aspects of the scapulas. This slowly disappeared. She also complained of a peculiar, continuous pain in the hands and arms which was different from that of arthritis. This was demonstrated to be erythromelalgic in character and it cleared up immediately when the arms were raised slightly and

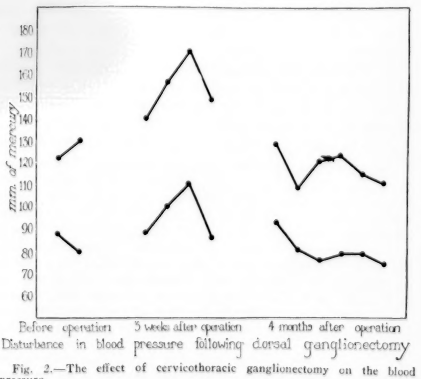
mm. of mercury
Before operation
5 weeks after operation
4 months after operation
Disturbance in blood pressure following dorsal ganglionectomy

Fig. 2.—The effect of cervicothoracic ganglionectomy on the blood pressure.

supported a little above the level of the body. This also disappeared entirely in the course of two to three weeks. Bilateral Horner's syndrome also had developed. There was slight drooping of the eyelids, and the pupils were small and did not dilate with cocaine.

1. Adson, A. W., and Brown, G. E.: Raynaud's Disease of the Upper Extremities: Successful Treatment by Resection of the Sympathetic Cervicothoracic and Second Thoracic Ganglions and the Intervening Trunk, J. A. M. A. **92**: 444-449 (Feb. 9) 1929; The Treatment of Raynaud's Disease by Resection of the Upper Thoracic and Lumbar Sympathetic Ganglia and Trunks, Surg. Gynec. Obst. **48**: 577-603 (April) 1929.

This did not detract from her good appearance. Neurologic examinations showed that no other nervous anomalies could be detected in relation to touch, pain, vibration sense and stereognosis.

Early after operation the patient had slight arthritic pains occasionally in the upper extremities, so that physical therapeutic measures were instituted, but

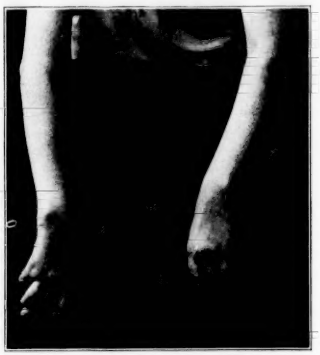

Fig. 3.—Appearance of the distal portions of the upper extremities before bilateral cervicothoracic ganglionectomy.

before she had left the hospital she was satisfied that the pains of arthritis had entirely disappeared from all her joints. She was entirely transformed in appearance. The pinched, drawn facies and the dark circles under her eyes had disappeared and given place to a happy and contented expression.

The strength began to return to her hands immediately following the operation. The swelling rapidly subsided and the tremor of the hands and fingers, which formerly was so evident during attempts at movements of the hands, lessened materially. The skin of the hands and arms became dry and slightly suggestive of ichthyosis but this condition soon disappeared. The improvement in the grip of the two hands, as determined by the ergometer, is shown in figure 1.

The circulatory phenomena were of decided interest. The pulse was normal in rate and rhythm but the radial and brachial arteries were soft and rather collapsible. On one occasion she had an attack of tachycardia and palpitation which lasted ten minutes, but this condition never recurred. Tachycardia has been noted in other cases after cervicothoracic ganglionectomy. The blood pressure, which had been normal, rose as high as 175 systolic and 116 diastolic in the arms and 180 systolic and 110 diastolic in the legs. Later, the vasomotor system must have undergone some sort of adjustment, for four months later the blood pressure had returned to normal in the arms and legs (fig. 2).

The sweating mechanism was disturbed. It was anomalous in distribution; sweat was almost entirely lacking over the extremities, and rather marked in quantity over the chest, abdomen and back. With administration of pilocarpine hydrochloride, however, sweating could be induced over most of the body.

There was striking elevation of the temperature of the hands (table 1). The changes in temperature of the hands following cervicothoracic sympathetic ganglionectomy were almost identical with those observed previously in the feet following lumbar sympathetic ganglionectomy. The increase in the temperature of the feet has been fully sustained over a period of nearly three years. The increased temperature in the fingers was accompanied by alteration in capillaries as reflected in those seen in the nailfold. Here the capillaries were easily visualized owing to excellent transparency of the skin. They had sharp margins and a rapid flow of blood without stasis. The collecting venules, also, could be clearly visualized.

The patient was dismissed, Jan. 7, 1929, to visit some friends in Wisconsin and promised to return for reexamination before returning to her home. At this time the symptoms associated with the active arthritis had practically ceased. However, she still complained of tenderness and pain between the shoulder blades in the region of the surgical wound which was severe enough at the time of her dismissal to require an occasional dose of codeine.

During the patient's sojourn in Wisconsin "sniffles" developed, a condition of moisture of the nasal mucous membranes which has been seen on several occasions following this operation. It proved to be of little, if any, consequence. There was also a return of slight pain of an arthritic nature in both wrists, and in the right elbow and the shoulder. She could move her arms rather freely, comb her hair and wash her ears, a privilege that had been denied her for several years. She said that her wrists "locked" occasionally and that some tremor persisted which made her somewhat awkward in the use of her hands.

On the patient's return at the end of March, the arms and hands appeared much improved. There was much better muscular tone in the upper parts of the arms and less wasting of the intrinsic muscles of the hands.

Fig. 4.—Same parts as those shown in figure 3 after bilateral cervicothoracic ganglionectomy.

The hands and fingers had lost their swelling and were more shapely (figs. 3 and 4). The ulnar deflection of the fingers had almost disappeared, but it was still noticeable, especially with the fingers spread and the arms raised. Distinct, but greatly diminished, tremor was

also present in the performance of this act. The hands were soft, perfectly dry and very warm. There were no sore areas in any joints from the wrists down. The nails (marked with silver nitrate at the margin of the fold at the time of the operation) were more healthy in appearance, with less ridging and fewer indentations. The new part of the nail was entirely normal in appearance.

Naturally we were interested in the roentgenographic disclosures but they showed little of interest. The roentgenographic report of the examination of Nov. 15, 1928, stated that there was marked atrophy of the hands with destructive changes in the radiocarpal and carpal joints and various joints of the hands, and old fracture of the sixth, seventh, eighth and ninth ribs on the left, with marked callus. The final examination, March 18, 1929, showed periarticular arthritis of the hands and wrists; contraction deformity of the fingers; some atrophy of the right elbow and shoulder joints; old fracture of the posterior ribs on the left with bony bridge or congenital anomaly, and resection of the second rib on the left. The bony changes throughout were extremely slight and the roentgenologist, on comparing the two series, stated that he could not see any essential difference between the first and last series.

At the time of dismissal of the patient, April 9, the general examination did not reveal anything new. The Horner syndrome persisted, but the pupils dilated markedly and promptly when atropine, 0.0022 Gm. ($\frac{1}{30}$ grain), was administered. She weighed 16 pounds (7 Kg.) more than on her first admission. The blood pressure was entirely normal in all extremities. There was still a slightly painful area over portions of the right scapula. The general results are summarized in table 2.

COMMENT

The results observed in the case reported here following sympathetic ganglionectomy and ramisectomy reveal the fact that in certain types of arthritis the sympathetic nervous system of the extremities is hyperactive, producing a marked vasomotor disturbance and profuse sweating, and possibly contributing to the spasm and atrophy of the muscles with the resultant deformities. The clinical picture is characterized by coldness of the extremities, marked sweating, tender, painful and swollen joints, and trophic changes in the muscles, skin and nails. In our case, all of these abnormal manifestations disappeared on release of the extremities from sympathetic control. The relief in the lower extremities was complete, lasting over a period of almost three years. Similar results were obtained in both hands following cervicothoracic sympathetic ganglionectomy, but there are still some slight residual manifestations of arthritis, slight pain and limitation of motion in both wrists. The lapse of further time and more cases are essential, of course, to a final evaluation of the effects of sympathetic ganglionectomy in this form of arthritis. But to date the results, both objective and subjective, have been astounding in this case. Speculation concerning the mechanism of recovery is purposely omitted at this time. In the types of arthritis associated with marked bony changes, sympathetic ganglionectomy may be of little if any value; but in view of our obvious ignorance of the rôle of the sympathetic nerves in arthritis, its potentialities, even in this field, should be determined. In determining the value and limitations of sympathetic ganglionectomy in arthritis, the intelligent selection of cases obviously is a factor that is of paramount importance.

TABLE 1.—*Studies of Temperature of the Skin and Elimination of Heat in the Left Hand*

Date	Temperature, C. Mouth	Room	Index Finger	Dorsum of Hand	Palm	Calories Eliminated Total for 20 Min.	For Each Minute	Comment
11/16/28	36.8	22.5	24.1	30.7	32.0	.....	...	
11/19/28	36.7	23.8	31.7	31.8	33.0	1,640	82	Hands very painful
11/22/28	37.0	24.6	23.3	27.1	29.3	.....	...	
11/29/28	....	....	....	....	....	.....	...	Right and left cervicothoracic ganglionectomy
12/11/28	33.4	24.0	30.0	31.2	32.1	2,360	118	Hands normal in color and very dry
12/17/28	36.8	24.0	30.6	31.5	32.8	.....	...	
12/18/28	36.4	22.0	32.6	31.3	....	.....	...	
3/12/29	36.0	25.2	33.3	33.7	35.9	.....	...	Hands very warm and comfortable
3/14/29	36.6	23.6	34.9	33.0	34.3	.....	...	

TABLE 2.—*Record of a Case of Arthritis Before and After Sympathetic Ganglionectomy* *

Conditions	1920 to 1926 Before Operation All Extremities	After Bilateral Resection of Lumbar Sympathetic Ganglions 2, 3 and 4 Upper Extremity	After Bilateral Resection of Lumbar Sympathetic Ganglions 2, 3 and 4 Lower Extremity	Additional Resection of Thoracic Ganglions 2 and 3 and Stellate Ganglions Upper Extremity	Additional Resection of Thoracic Ganglions 2 and 3 and Stellate Ganglions Lower Extremity
Pain	+	+	0	0	0
Continuous	+	+	0	0	0
Worse after storms	+	+	0	0	0
Tenderness	+	+	0	0	0
Swelling	+	+	0	0	0
Deformities	+	+	0	±	0
Limitation of motion	+	+	0	±	0
Trophic changes	+	+	0	±	0
Atrophy of muscles	+	+	0	±	0
Cold extremities	+	+	0	0	0
Moist extremities	+	+	0	0	0

* The final observations were made four and a half months after the second operation.

* A second patient with polyarthritis of the same type involving the lower extremities has responded to treatment the same way. The patient, after having been bedridden for ten months, is walking unassisted and without pain a distance of 100 yards, seven weeks after operation.

Exercise, Regular and Irregular.—Exercise, or the want of it, is responsible for many obvious adaptations, obvious once they are appreciated, but space forbids carrying the discussion much further. Many of the effects observed in animals can without doubt be transferred to man. Many human beings are leading "caged lives," with physical reserve reduced, and often with an associated reduction in the sense of well being. Exercise for exercise's sake, however, is not to be recommended in a haphazard fashion. An hour of exercise added to the schedule of an already fatigued business man might well be disastrous for him. Time devoted to exercise should be taken preferably on a reduced schedule of work associated with freedom from worry and nervous tension. Strenuous exercise for a man at 50 should be avoided unless it has been systematically carried on through preceding years. Occasional games of tennis or squash for men in middle life or past, whose lives are otherwise quite sedentary, are apt to produce more damage than good. Exercise planned for the individual, regularly indulged in, over a lifetime should yield many dividends of health. Sedentary workers, in our opinion, will be better off in the long run by avoiding occasional participation in strenuous games or other forms of severe exercise.—Bock, A. V.: On Some Aspects of the Physiology of Muscular Exercise, *New England J. Med.*, March 28, 1929.

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NEUROGENIC VESICAL DYSFUNCTION IN INFANCY AND CHILDHOOD *

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In infants as in adults, neuromuscular disturbances of the bladder are a frequently observed cause of chronic pyuria and in some instances lead to an untimely death. Usually these disturbances are first manifested by abnormal vesical sphincteric activity which eventually results in functional and anatomic alterations in the bladder musculature, ureters and kidneys. Since the underlying etiology is neurogenic in character, relatively little can be done to effect a cure. The prognosis is uniformly grave. Infection supervenes early or late; often the kidneys are totally destroyed and these patients die in uremia with or without other complicating disease (e. g., pneumonia). Fortunately, the clinical manifestations are not always severe. Enuresis may be the end-result in mild cases, but paralytic incontinence may be present if the disease is advanced.

I am here presenting a study of twenty cases of neurogenic vesical dysfunction in infants and children. In eight of these the urinary tract was studied at autopsy.

CLINICAL OBSERVATIONS IN NEUROVESICAL DISEASE

Numerous and extensive classifications of these vesical disturbances have been made, but for practical purposes the neurologic disease will be considered to be of either (1) the central nervous system (brain and spinal cord) or (2) the peripheral nerves supplying the bladder. In certain of these cases in the young, it has not been possible to demonstrate actual neurologic disturbances as determined by isosegmental sensory or motor changes.

Brain and spinal cord lesions in childhood are comparatively rare; congenital cerebrospinal syphilis is perhaps the most commonly observed disease causing true cord changes. The incidence of nonsyphilitic meningitis is probably greater, but in these patients cord injury is rarely severe enough to be manifested by vesical dysfunction. In a girl, aged 16 years, not included in this series, vesical dysfunction was a complication of lateral sclerosis, this diagnosis having been confirmed by autopsy. The bladder and entire upper urinary tract were enormously dilated and showed marked infection. Tumors of the spinal cord and its meninges as well as certain organic diseases of the brain may also produce vesical dysfunction, but in these cases the primary disease usually kills before the urinary tract changes are sufficiently well advanced to be fatal. Cord injuries produce the same vesical symptoms as do cord tumors, but these symptoms are manifested much earlier. I have included one such example (case 20). In three of my patients, the vesical disturbances were proved by autopsy to be due to cerebral disease: atrophy of the frontal convolutions (case 10); cranioschisis with cerebral deformity (case 11), and congenital syphilis with cerebral deformity (case 18).

Of far greater importance because of their relatively greater incidence are those urinary tract diseases due to lesions of the peripheral nerve supply of the bladder. The cause of the peripheral nerve disease cannot be determined in all cases, but it is known that the condition may be the end-result of a toxic neuritis secondary to acute infectious disease. Among the more common of these infectious diseases are diphtheria (cases 7 and 8), measles (case 9) and scarlet fever. I have observed the condition to follow a severe pneumonia. In another instance, a young adult, the condition obviously resulted from a diabetic peripheral neuritis. Unquestionably, many peripheral nerve lesions of but mild or moderate severity clear up spontaneously and do not give any clinical manifestation of bladder disturbances, so that when patients are encountered showing urinary tract disease of this character, it may be assumed that nerve injury has been quite extensive and that the probability of restoration to normal function is negligible. In other words, these cases must be considered and treated as the end-result of a severe nerve injury.

Fig. 1 (case 4).—Congenital lateral deviation of sacrum in case of "cord bladder," paralytic stage; sensory and motor loss of first to fifth sacral nerves; low renal function with marked infection; right kidney functionally dead.

In certain instances the peripheral nerve disease is associated with and apparently secondary to congenital spinal defects—notably spina bifida. Fortunately the majority of patients with spina bifida do not suffer vesical dysfunction, but when the vesical condition is due to spina bifida, hope of successful treatment is scant. In one case of this type at Bellevue Hospital, removal of a large fibrolipomatous pad from the bony canal of the spina bifida resulted in the ultimate cure of a vesical upset characterized by rapidly recurring attacks of acute retention (case 5). Sometimes the associated spina bifida nerve lesion is manifested by loss of control not only of the vesical and rectal sphincters but of the muscles of the legs as well. In a number of patients showing coexisting spina bifida and vesical dysfunction without cutaneous sensory changes, the etiologic relationship is exceedingly difficult to establish.

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Sacral nerve dysfunction may result from sacral deformity other than spina bifida. The most commonly observed anomaly is a lateral displacement and angulation of the sacrum. In an 11 year old boy showing this deformity (case 4, fig. 1), paralytic vesical incontinence and cutaneous sensory hypesthesia were determined by neurologic examination to result from bilateral motor and sensory loss of the first to the fifth sacral nerves. Cystographic and cystoscopic examination of the bladder wall indicated that spastic sphincteric obstruction had existed for some time before sphincteric paralysis developed (fig. 2).

In still other cases, one must be content to designate the etiology of the peripheral nerve disease manifestations as idiopathic. A surprisingly large number of cases of neurovesical disease fall within this category. Of this group, those manifested clinically by marked enuresis or partial incontinence are most commonly observed. I do not include in this group the more commonly observed forms of mild enuresis because many extraneous factors may be operating to cause the vesical disturbance. Bad home training, hereditary factors and certain psychic elements form too frequently the etiologic background of simple enuresis.

Neurogenic Vesical Dysfunction

Case; Age; Sex*	Chief Complaint	Duration	Intermittent Fever	Gastrointestinal Upsets	Physical Examination	Pus in Urine	Urinary Bacteria	Nonprotein Nitrogen, Mg. per 100 Cc.	Uric Acid, Mg. per 100 Cc.	Phenolsulphonphthalein Two Hours	Roentgenogram	Cystoscopy
1. J. M. 22 mo. ♀	Frequency, dysuria, difficulty, occasional incontinence	Life	+	++	Distended bladder 3 cm. above symphysis	++++	B. coli	95	8.2	Less than 5%	Spina bifida	Cord bladder; extreme trabeculation
2. D. C. 8 yr. ♂	Frequency	3 mo.	0	0	Negative	+	Nonhemolytic streptococcus	24	3.5	58%	Spina bifida	Atonic vesical outlet
3. J. N. 6 yr. ♀	Dysuria; abdominal pain; occasional frequency	8 mo.	++	++	Bladder palpable halfway to umbilicus; 12 ounces residual urine	++++	B. coli	50 to 228	4 to 13.4	45% to trace	Negative	Cord bladder; gaping ureteral orifices
4. H. J. 11 yr. ♂	Incontinence	Life	++	++	Sensory loss 1-5 sacrals; 48-5 ounces residual urine	+++	Staphylococcus aureus	31	...	7½%	Spina bifida lumbar 5 to sacral 5; marked sacral deviation to right	Cord bladder with paretic sphincter
5. A. C. 9 yr. ♂	Frequency with rapidly recurring acute retentions	3 mo.	0	0	Distended bladder	+	B. coli	32	...	50%	Spina bifida	Cord bladder
6. T. T. 6 yr. ♂	Incontinence	Life	0	0	Hypospadias; wet clothes	++	Staphylococcus	30	...	55%	Spina bifida	Atonic bladder; lax vesical outlet
7. R. D. 3 yr. ♀	Dysphagia; weakness of lower extremities following diphtheria	3 mo.	0	+	Postdiphtheritic paralysis of legs	++++	.....	..	...	....	.....	.....
8. F. L. 4 yr. ♀	Frequency, urgency, dysuria, nocturia and day wetting following diphtheria	2½ yr.	0	0	Wet clothes	+	Staphylococcus	..	...	....	Negative	Atonic bladder; cystocele; paretic sphincter
9. H. W. 5 yr. ♂	Frequency; partial incontinence following measles	3 yr.	0	0	Wet clothes	++	Staphylococcus; nonhemolytic streptococci	..	...	....	Negative	Atonic bladder; lax sphincter
10. S. A. 2 yr. ♀	Pyuria and fever	Life	++	++	Malnutrition	++++	B. coli	..	...	....	.....	.....
11. C. M. 8 wk. ♀	Marasmus	Life	+	+	Marasmus	++++	.....	..	...	....	.....	.....
12. D. E. 7 yr. ♀	Enuresis	Life	0	+	Dribbles urine; bladder not palpable	+++	Staphylococcus aureus	28	2.6	60%	Negative	Cord bladder, atonic sphincter
13. J. G. 8 yr. ♀	Incontinence	6 yr.	0	+	Wet clothes	0	0	..	...	....	Negative	Atonic bladder; paretic sphincter
14. S. W. 10 yr. ♀	Dysuria, partial incontinence	Life	0	0	Wet clothes	+	0	..	...	....	Negative	Atonic bladder; extremely lax sphincter
15. C. B. 6 yr. ♀	Extreme frequency; enuresis	Life	0	0	Wet clothes	0	0	..	...	....	Negative	Atonic bladder; lax sphincter
16. A. C. 9 yr. ♂	Frequency; nocturia; abdominal pain; passage of mucopus in urine	Years	++	++	Mitral insufficiency	++++	B. coli	57	5.2	15 to 5%	.....	.....
17. A. S. 7 yr. ♀	Brought to hospital with pneumonia; died following day	..	+	..	Looks 2 years of age; pneumonia	++++	.....	..	...	....	.....	.....
18. H. S. 9 yr. ♂	Convulsions since meningitis at 3 months	Life	0	++	Distended abdomen; bladder not felt	++	.....	..	...	....	....	.....
19. N. J. 3 yr. ♂	Malnutrition	Life	0	++	Maldevelopment; malnutrition	++	.....	..	...	....	.....	.....
20. J. T. 15 yr. ♂	Acute retention; spinal fracture	1 wk.	0	0	Complete retention since accident; fracture dorsal vertebrae 7, 8	++++	B. coli	..	...	....	Fracture dorsal vertebrae 7, 8	.....

* In this column, ♂ indicates male; ♀, female.

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Neurovesical disturbances are characterized by their patchy clinical picture. We have not been able as yet to follow these young patients over a sufficient period to determine any suggestion of symptomatic or pathologic sequence in the progress of their nerve disease in its relation to vesical upsets. What takes place can be inferred only from our knowledge of similar processes in the adult. As a rule, these disturbances are first manifested by sphincteric spasticity. Atony usually follows somewhat later. Particularly does atony involve the internal sphincter, which ultimately becomes lax—either partially or completely paralyzed. The external sphincter is the last to give way. Cystographic demonstration of this atonic condition of the internal sphincter is observed in the funnel shaped vesical outlet, which is so characteristic as to be diagnostic (figs. 2 and 3). When the external sphincter also gives way complete vesical incontinence results.

in Infancy and Childhood

Urogram	Treatment	Cause of Death	Autopsy	Additional Data and Comment
Greatly dilated bladder, left ureter and kidney	Methenamine	Uremia	None	Pyuria since birth with great difficulty in voiding
Funnel outlet; no ureteral reflux	Methenamine	.....	.....	Because of sphincteric atonicity, bladder would not hold more than 60-75 cc.; neurologic examination negative
Marked dilatation of bladder, ureters and renal pelves	Indwelling catheter; urethral dilation; transfusions	Uremia	None	Bladder urine 30 per cent thick ropy pus; patient observed for six months during which time she rapidly lost; neurologic diagnosis: myelitis
Large irregular bladder; funnel outlet	Methenamine	.....	.....	Right kidney functionally dead; because of low phenolsulphonphthalein excretion, plastic surgery to restore vesical control was not attempted; atonic rectal sphincter
.....	Removal of fibrolipomatous mass from sacral canal	.....	.....	Following operation acute retentions ceased, a moderate frequency persisting
Normal bladder outline; no reflux	None	.....	.....	Backward child, mentally deficient; neurologic examination was negative
.....	.....	Urinary sepsis	Marked dilatation, hypertrophy and infection of bladder; renal and ureteral infection; no obstruction	Paralytic symptoms began soon after a severe diphtheria; there was a definite peripheral neuritis of the lower extremities and vesical control was likewise involved
Dilated, slightly irregular bladder; no reflux	None	.....	.....	Child temperamentally extremely unstable; vesical symptoms followed a severe diphtheria
Negative	.....	.....	.....	No cause found; neurologic examination negative
....	Methenamine	Urinary sepsis	Marked dilatation, hypertrophy and trabeculation with infection of bladder; right ureter and pelvis dilated and infected; right pyonephrosis	Atrophy of frontal convolutions of brain; Meckel's diverticulum
.....	.....	Marasmus	Marked dilatation and infection of bladder, ureters and pelves without obstruction; craniorachisis	Patent foramen ovale
Slight bladder irregularity; no reflux	.....	.....	.....	
Large bladder	....	.....	.....	Vesical disturbances followed severe measles at age of 2 years and have persisted to date
Negative	.....	.....	.....	No cause found; has two sisters with enuresis; mother and maternal grandmother also had enuresis
Negative	.....	.....	.....	Neurologic examination negative
.....	Methenamine transfusion	Cardiac uremia	Marked dilatation and infection of bladder, ureters, kidneys; no obstruction; ureters 2.5 cm. in diameter	
.....	.....	Pneumonia	Bladder markedly dilated, trabeculated, ulcerated; no obstruction; ureters dilated; right kidney three times normal size, pyonephrotic; left, atrophic; spina bifida marked	Also osteogenesis imperfecta; cystic disease of ulna, radius and both humeri
.....	.....	During convulsion	Bladder dilated, hypertrophied, trabeculated and infected; no obstruction; upper tract changes moderate	Also congenital syphilis and chronic meningitis with brain deformity; adhesions between lobes; acute hemorrhagic pachymeningitis
.....	.....	Malnutrition	Bladder dilated, trabeculated, with hypertrophied walls, and infected; no obstruction; both ureters and pelves dilated and infected	Fell 20 feet, became comatose; neurologic examination revealed motor paralysis below second lumbar and sensory loss below seventh dorsal; vesical symptoms as manifested in this case are not uncommon in cases of cord tumors
.....	Periodic catheterization; fracture treatment	Urinary sepsis; shock	Bladder greatly dilated, hemorrhagic ulcerative cystitis; no obstruction; slight upper tract changes; ulcer on bladder dome covered only by peritoneum	

In the early stages of vesical sphincteric spasm (which is analogous to chronic cardiospasm and pylorospasm), the tonic vesical outlet brings into action the same physical forces and dynamic factors operating when the obstruction is an enlarged prostate. The bladder becomes distended, dilated, hypertrophied and

trabeculated; often diverticula form and, with the advent of infection and neurotrophic changes, atony follows. Reflection of the vesical backpressure to the upper urinary tract similarly affects the ureters and renal pelves, with gradual thinning out of the renal parenchyma (fig. 4). The end-result, therefore, is diminution and destruction of the secreting renal epithelium. Infection intervenes in all cases to accelerate the destructive processes not only by inflammatory involvement of the renal parenchyma but by inflammatory infiltration of the ureteral and vesical walls, leading eventually to sclerotic atony. Speeding up this nefarious course are neurotrophic changes in both the bladder and the ureteral musculature. Muscle tone is diminished and mural changes take place at a greater rate than when the urinary obstruction is not accelerated by nerve disease. As a result of vesical dilatation and atony, residual urine is commonly found.

Fig. 2.—Appearance of bladder in case 4. Of extreme interest are (1) the funnel shaped vesical outlet resulting from sphincteric paralysis; (2) the markedly irregular bladder wall with numerous small saccules—evidence of chronic distention, and (3) the ureteral reflux. In this patient, a boy, aged 11 years, the low renal function did not permit any surgical attempts to restore bladder control.

SYMPTOMS

Chronic pyuria and frequency of urination are the outstanding symptoms in these cases. Pyuria will be found uniformly in advanced cases and in the great majority of the moderately advanced. Only in early cases may absence of infection cause the urinary tract disease to be overlooked. Because of the persistent pyuria, the physician usually makes a diagnosis of chronic pyelitis, administers urinary antiseptics and fails utterly to recognize the true nature of the underlying disease. Correct diagnosis is of great therapeutic importance, for with a proper understanding of the neurogenic element in cases complicated by urinary retention, the establishment of urinary drainage or the institution of periodic catheterization will do much not only to prolong life but to render the remaining days more livable. Here is but another striking example of the advisability, even necessity, of thorough urologic examination in all pediatric cases showing chronic pyuria which, in spite of intensive medical therapy, persists longer than from four to six weeks.

Frequency often amounting to semi-incontinence may be noted. Enuresis is the diagnosis usually given to this group. In many, the clothing will be found wet most of the time. It is of interest in this connection that, in a recent complete urologic study of a series of enuretic patients, definite cystoscopic evidence was found of neurogenic vesical disease in nearly half. A lax internal sphincter was most frequently observed.

In some cases of neuromuscular vesical disease, a paradoxic incontinence may be present, the result of overflowing of a chronically distended bladder. Later, true paralytic incontinence usually appears.

Vesical distention often causes lower abdominal pain; ureteral or pelvic distention may cause loin pain or backache. With the advent of severe infection, intermittent fever will be noted. As a result of the infection, ulceration of the urinary tract mucosa is common and hematuria may be observed. Inflammatory changes about the vesical outlet or in the urethra cause dysuria—particularly burning—which may be so severe that the child cries out with each voiding.

There are often symptomatic manifestations other than those localized to the urinary tract. In the presence of infection, chronic or intermittent fever may be observed, as in a third of our cases. Often the urinary lesion is reflected in the gastro-intestinal tract, as evidenced by repeated upsets, such as nausea, vomiting, indigestion and diarrhea. In a half of our patients there was a past history of such enteral attacks. In some of these cases the gastro-intestinal disturbances may have been of other etiology.

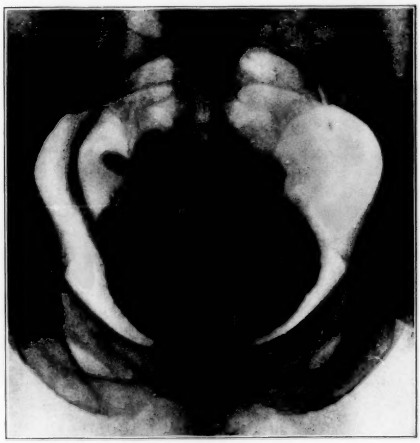

Fig. 3.—"Cord bladder" in young woman not included in this series but showing well the end-result of neurogenic vesical disease. The diagnosis was cerebrospinal syphilis. Residual urine measured 15 ounces. Particularly illustrative are the funnel shaped vesical outlet of sphincter paralysis, vesical diverticula and ureteral reflux.

DIAGNOSIS

In the examination of these patients, urinalysis, chemical examination of the blood, renal function tests, abdominal palpation, rectal examination, urography and cystoscopy reveal the nature and extent of the lesion.

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Urinalysis indicates approximately the degree of infection, and, if sugar is not found, one may rule out diabetic peripheral neuritis. Chemical examination of the blood for urea nitrogen and the two hour phenolsulphonphthalein test are invaluable renal function indicators. The former discloses the renal functional activity in the immediate past; the dye test shows the renal function at the time of the examination.

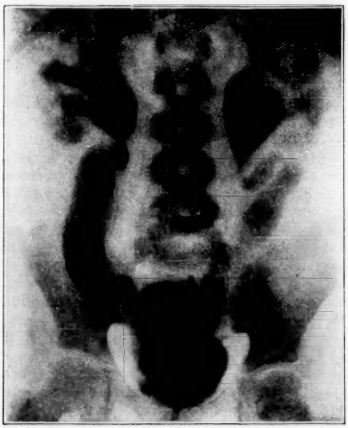

Fig. 4 (case 3).—"Cord bladder" secondary to myelitis in a girl, aged 6 years. There was 12 ounces of thick purulent residual urine. The sphincters were spastic, the ureter orifices gaping. When cystography was performed, a marked reflux of urographic medium outlined the upper urinary tract, which is dilated to ten times the normal size. The patient later died of uremia.

Abdominal palpation frequently discloses a distended bladder. In one of our patients the bladder was intermittently distended to the umbilicus.

In some instances, rectal examination reveals the tonal condition of the vesical sphincters reflected in the anal sphincters. In case 4, in which there was vesical sphincter paralysis, the observation of an atonic rectal sphincter was particularly striking.

Cystography is easily performed and may yield a wealth of diagnostic information. The bladder is emptied of urine, and 5 per cent sodium iodide is injected to an amount which will make the patient just aware of its presence. Roentgenograms are taken. These pictures indicate the outline of the bladder walls as well as the size of the organ. The normal child bladder is of oval contour. In cases of advanced neurogenic vesical disease, the contour becomes characteristically pyriform. Irregularity of vesical outline indicates trabeculation or sacculation of the walls —a common observation in these cases. In certain instances, diverticulum formation may be disclosed (fig. 3). Cystograms also indicate the conformation of the vesical outlet, whether funnel shaped as a result of sphincter atony or sharply defined and rounded as is normal. It should always be borne in mind that the spastic vesical outlet will appear normal in the cystogram, but irregularity of the bladder wall (indicating the mural changes) suggests obstruction and gives the cue to the true diagnosis.

Perhaps most striking is the degree of ureteral reflux shown. With neurogenic atony of the ureteral orifice sphincter, iodide will pass up the ureter and not infrequently outline well the renal pelvis (fig. 4). Dysfunction of the ureteral meatal sphincter may also be due to inflammatory ureteritis—the result of infection.

In most cases cystography offers enough information to indicate the correct diagnosis. However, cystoscopic examination of these patients is done not only to study the vesical outlet carefully but to search the bladder for any abnormalities not evident on the cystographic film. Atony of the vesical outlet in males permits one to withdraw the cystoscope well into the posterior urethra, affording a good view of this canal and of the verumontanum. In one instance this atonic condition enabled us to observe a unilateral congenital posterior urethral valve, which, however, was not of sufficient size to cause urinary blockage.

Ureteral catheterization, comparative renal function tests and pyelography often afford interesting and instructive additional data but do not aid materially in the diagnosis of neurogenic vesical disease. Cystography alone usually gives sufficient information to enable one to make the correct diagnosis, it being borne in mind that the cystogram of congenital vesical neck obstruction (fig. 5) and that of spastic sphincteric obstruction are quite identical. Differential diagnosis between these two conditions can be made only by cystoscopy.

In my experience, examination of the spinal fluid has not been of any diagnostic assistance in any instance except to rule out syphilis. While I believe that thoroughness of examination demands that it should

Fig. 5.—Congenital vesical outlet obstruction in a boy, aged 2 years, giving a urographic picture identical with that commonly seen in neurogenic bladder disease of the spastic sphincter type. The differential diagnosis must be made by cystoscopy.

always be done in these cases of neurovesical disorders, it is urgently indicated in the presence of a positive blood Wassermann reaction or when a tumor of the cord or brain is suspected. Neurologic examination for dysfunction of the lower lumbar and sacral nerves is often successful and a diagnostic aid in older children but is highly unsatisfactory and of little value in the young. A saddle hypesthesia of the perineum and

buttocks is the most commonly observed neurologic change. In certain instances the syndrome of cord bladder is evident from urologic examination, even though one can demonstrate neither motor nor sensory isosegmental abnormalities.

TREATMENT

Treatment in these cases is most unsatisfactory, and the attainment of a cure is unlikely. Often these patients are not seen until renal injury and infection are extreme. In cases showing large amounts of residual urine, I have practiced gradual decompression or slow emptying of the bladder together with the use of an indwelling urethral catheter. I have, without therapeutic success, dilated the vesical outlet in cases of spastic vesical sphincter on the same physiologic basis that esophageal bougies are passed in cases of persistent cardiospasm. Some have performed nephrostomy drainage; some have transplanted the ureters into the bowels, while others have created, in cases of paralytic sphincters, a new sphincter by wrapping a segment of the gracilis muscle about the urethra. When ureter transplant into the bowel is contemplated as a relief of vesical incontinence, one must first ascertain that the anal sphincter is not also paralytic. In the urinary retention type of disease, when periodic catheterization can be regularly carried out three or four times a day, it probably offers the best method of treatment.

Internal medication may afford some relief from symptoms due to infection. As a rule, however, the large doses of urinary antiseptic necessary to obtain bacteriostasis will be found upsetting to the gastrointestinal tract and irritating to the urinary apparatus. A large fluid intake is always indicated. In the majority of advanced cases the most one can do is to recognize the nature of the lesion, inform the parents of the true situation, and offer as much comfort as possible to the patient, bearing in mind that even in the presence of extreme renal destruction he may live for some years if an acute infection does not intervene. In the less severe cases, those manifested clinically by marked enuresis or partial incontinence, the parasympathetic neurofunction of vesical emptying may often be inhibited—partially at least—by atropine. If the nerve lesions are marked, however, such drug therapy is of no value.

33 East Sixty-Eighth Street.

Environment and Tuberculosis.—That heredity has its influence on the occurrence of tuberculosis is rather well fixed in the mind of laymen. Nevertheless, one cannot deny that through heredity the child's immediate station in life is established with its degree of poverty, its relative malnutrition, and very often its necessity for early employment during periods of physical growth, all of which modifies the soil for the invasion by *B. tuberculosis*. Still, these influences cannot be looked upon in the sense of true heredity; so much more do these influences figure when children are born to parents suffering from open pulmonary tuberculosis, for this disease occurs six to nine times more frequently in homes with open cases than in homes of healthy families. It becomes therefore purely a matter of environment and not a matter of heredity for the white race. It has been amply shown that it is the droplet infection from open cases that spreads tuberculosis in the home. These facts have been so fully appreciated by the officials of Chicago that a law enacted reads as follows: No child under the age of 16 years shall live in the same home, apartment, or other place of abode or habitation occupied by a person suffering from active or open pulmonary tuberculosis (consumption).—Bell, H. H.: Tuberculosis in St. Louis, *J. Missouri M. A.*, December, 1928.

AN UNAPPRECIATED CAUSE OF CHRONIC BRONCHITIS*

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Chronic bronchitis is one of the most frequent conditions that the general practitioner is called on to treat. I mention the general practitioner, because most cases of chronic bronchitis are seen and treated by the family physician. Any one having spent some time in general practice realizes what a bugbear chronic bronchitis or frequently repeated attacks of acute bronchitis may be. Every physician can recall dozens of patients who had a persistent cough during the winter months and many other persons who were subject to frequent colds in whom treatment was more or less unsuccessful. While it is true that the majority of these cases occur in the later decades of life, still a not inconsiderable number of cases occur in the early adult life or even childhood. Not infrequently patients so afflicted go from physician to physician seeking relief from each one. An expectorant, either with or without opiates, will give temporary relief, but there is always a recurrence.

What is the underlying pathologic condition in these unfortunate cases? Why is it that the condition persists in spite of various types of treatment? Is there any other type of treatment that may be used in these cases?

During the past three years there has been occasion and opportunity to examine a large number of patients suffering from chronic bronchitis or repeated attacks of acute bronchitis. While many of these have been elderly persons, at least past middle life, a good proportion were young, university students, and in apparently very good health. The students especially were physically fit, active individuals, attending classes every day, and not having any symptoms except a chronic cough, often not associated with expectoration, except when they were suffering from an acute exacerbation.

One case is reported here in detail, which happened to be the first case of the series coming under my observation:

A woman, aged 22, was completing her senior year at the university. For four years she had been a frequent visitor at the student health clinic, coming with various complaints. Her most frequent complaint, however, was cough, so that a diagnosis of chronic bronchitis had been made on numerous occasions. Because of the various complaints and because of the unsatisfactory results obtained as the result of treatment, the patient was considered to have a neurotic tendency, which she had indeed. She consulted one physician after another, and each finally ended by telling her that there was nothing wrong with her, that all of her complaints were imaginary. As this kind of treatment was equally unsuccessful, the last physician whom she consulted became interested in her and, thinking that possibly some psychic stimulant would be beneficial, referred her to me for a bronchography. Great care was taken beforehand to explain to her that a medicated solution was going to be introduced into her lungs and that there would be a great benefit derived from this procedure. Iodized oil was introduced into the tracheobronchial tree under the fluoroscope, according to the "passive" technic, and a condition was found which was entirely unexpected. At the first sitting the right lower lobe was filled. An enormous saccular and cylindric dilatation of the bronchi could easily be detected (fig. 1). Several days later a similar procedure was repeated, filling the other side. As much, or even more, of a pathologic condition was demonstrated on this side (fig. 2). With this severe degree

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of bronchiectasis or bronchial dilatation, it was no wonder that the patient should have had a chronic cough and also a neurotic tendency.

The finding of such a marked degree of bronchiectasis in a patient giving no symptoms even suggestive of an early bronchiectasis made us realize that possibly many other cases of chronic bronchiectasis or recurrent attacks of acute bronchitis might be due to a bronchial dilatation. It was then decided that all patients presenting these symptoms should be given the advantage of a bronchography. A large series of patients were thus examined, and in more than 90 per cent of those not giving a history at all suggestive of a bronchial dilatation a definite dilatation was found. Not all of these patients, however, had a bronchiectasis in the sense in which bronchiectasis has been known. The pathologic process in the bronchial tree was not in all cases the same as that described in the textbooks. In four cases this dilatation was apparently only functional, because following treatment the dilatation disappeared completely, as evidenced both clinically and roentgenographically. The patients were not only symptomatically but also roentgenographically cured.

It becomes evident that one of the most, if not the most, important indication for a bronchography is a chronic cough or chronic bronchitis. Pritchard, Whyte and Gordon [1] have given as one of the indications for a bronchography a chronic cough with long standing infection of the respiratory tract, especially the sinuses.

Therapeutic measures may be employed in these patients with better results than those which are being used at the present time. I have found that in the cases of chronic bronchitis as described here, and also in the well advanced cases of clinical bronchiectasis, the repeated introduction of iodized oil into the tracheobronchial tree is of distinct therapeutic value. Not only is there a marked improvement in the clinical symptoms and signs, as evidenced by the diminution in the cough, a decrease or disappearance of sputum, an increase in the appetite with a gain in weight, and a feeling of general well being of the patient, but also bacteriologic examination of the sputum shows an actual decrease in the number of organisms. I have also observed that not only is the sputum decreased in amount but those patients complaining of fetid sputum, often so marked that they were obnoxious to those about them, found that, following the introduction of the iodized oil, the odor disappeared entirely. By repeated introductions of iodized oil into the tracheobronchial tree, it is possible to obtain a symptomatic cure. Though these patients become free from symptoms, it is folly to assume that they are cured, except in those very early cases in which irreparable harm has not occurred in the bronchi. In the case of bronchiectasis in which the bronchial tree has been so affected that the bronchial musculature and the elastic tissue in the bronchial wall have been replaced by fibrous tissue, one cannot hope to reestablish the normal condition of the bronchial wall. A sterilization of the bronchiectatic cavities can be accomplished, however.

Fig. 1.—Bronchography, right lower lobe: evidence of cylindric and saccular dilatation of the bronchi.

The introduction of iodized oil into the tracheobronchial tree is, then, of decided benefit, both diagnostically and therapeutically, in cases of chronic bronchitis. If, however, a bronchography is to be performed in these comparatively early cases, or cases presenting few symptoms—in fact, none aside from a chronic cough—and if it is to be used therapeutically, which procedure requires in many cases repeated treatment, it is essential that the technic employed for introducing the oil into the tracheobronchial tree be simple enough and not so unpleasant for the patient that it can be performed relatively easily and readily. The various methods that have been employed to introduce contrast substances into the tracheobronchial tree are, briefly, as follows:

Fig. 2.—Bronchography, left lower lobe: cylindric bronchiectasis.

1. The transglottic method, which consists of introducing the oil into the larynx by means of a laryngeal cannula which is connected with a syringe containing the oil.

2. The subglottic, or intercricothyroid, method. This consists of introducing a needle through the cricothyroid membrane, through which the oil may be introduced into the trachea.

3. The intralaryngeal method, performed either by means of a catheter introduced into the larynx, as advocated by Beck and Sgalitzer,[2] or by a modification of this apparatus, having a metal olive on the end of the catheter.[3] Wierig [4] has recently advocated the introduction of the Lorey olive into the primary bronchus which one desires to fill. Iglauer [5] uses a modified intubation tube which is introduced into the larynx.

4. The bronchoscopic method. This method is advocated by most of the bronchoscopists and is considered by them to be the method of choice, in spite of its complexity.

5. A method described by Lian, Darbois and Navarre,[6] which consists of pulling the tongue out forcibly and thus preventing swallowing. Such a procedure

1. Pritchard, Stuart; Whyte, Bruce; and Gordon, J. K. M.: Conclusions Regarding Technic Following 1,000 Intratracheal Injections of Iodized Oil in Adults, Radiology **8**: 104 (Feb.) 1927.

2. Beck, O., and Sgalitzer, M.: Zur Bronchographie mittels Larynxkatheters, Ztschr. f. Hals-, Nasen- u. Ohrenh. **14**: 8, 1926.

3. Lorey: Über den Wert der Kontrastfurellung der Bronchien zur Darstellung der Bronchiektasen, Fortsch. a. d. Geb. d. Röntgenstrahlen **33**: 58, 1925; Über Bronchographie, ibid. **34**: 127, 1926.

4. Wierig, A.: Die Technik der Bronchographie, Fortsch. a. d. Geb. d. Röntgenstrahlen **35**: 787 (Jan.) 1927.

5. Iglauer, Samuel: Use of Iodized Oil in Diagnosis of Pulmonary Lesions, Surg. Gynec. Obst. **45**: 82 (July) 1927; Use of Injected Iodized Oil in Roentgen-Ray Diagnosis of Laryngeal, Tracheal and Bronchopulmonary Conditions, J. A. M. A. **86**: 1879 (June 19) 1926.

6. Lian, Darbois and Navarre: Nonpénétration dans la trachée des injections dites intratrachéales faites par un procédé simplifé, Bull. et mem. Soc. med. de hôp. de Paris **46**: 470 (March 17) 1922.

has been advocated in this country by Singer,[7] but when done properly it is extremely unpleasant to the patient.

All of these methods, while having certain points of merit, have one common disadvantage. Each one is more or less complicated and unpleasant for the patient. Because of the complexity and the unpleasantness produced by the procedure, a bronchography will never have its necessary wide application if any of these procedures are used. In contrast to these complex procedures is the "passive" technic, which I have been using and which has been described in detail in previous publications.[8]

THE PASSIVE TECHNIC

For a proper understanding of this technic, it is essential to refresh one's memory concerning the physiology of swallowing. Normally, swallowing may be divided into two phases—a voluntary and an involuntary one. Following the mastication of the food the tongue is elevated, throwing the bolus of food into the pharynx. This constitutes the voluntary phase. As the food enters the pharynx the involuntary phase, or reflex act, of swallowing is instituted. There is a contraction of the pharyngeal muscles. The upper esophageal orifice, which normally remains tonically contracted, as does the cardia, is relaxed. This relaxation is affected by an inhibitory reflex supplied to the upper esophageal sphincter. The larynx moves upward to a point of safety beneath the base of the tongue and epiglottis. If this reflex act of swallowing is interrupted, either on the motor or on the sensory side, these various phenomena do not occur. In executing the passive technic a sensory anesthesia of the anterior tonsillary pillars is produced. This is the area in which the reflex act of swallowing is instituted. If a sensory anesthesia is produced at the point at which the reflex act is instituted, swallowing does not occur. There is no contraction of the pharyngeal muscles. There is no elevation of the larynx to a point of safety beneath the base of the tongue and the epiglottis. There is no relaxation of the upper esophageal orifice. Any substance entering the pharynx, with the patient in the upright position, must enter the only remaining opening—the superior laryngeal orifice.

The technic of the procedure, as carried out clinically, may be thus briefly described: Following the use of an antiseptic mouth wash, the anterior surface of the anterior tonsillar pillars is painted with a 10 per cent cocaine solution. The anesthesia is continued until the swallowing reflex is abolished, as evidenced by immobility of the larynx on attempted deglutition. As soon as the anesthesia is complete, the patient is instructed to take about 3 cc. of a 3 per cent procaine hydrochloride solution into his mouth. He then tips his head backward, protrudes his tongue, so that the procaine solution may enter the pharynx, leans slightly to the side which one desires to fill, and breathes. The procaine solution is used as an anesthetic to the tracheobronchial mucosa. As the anesthesia of the anterior pillar is only temporary, it is essential again to paint the anterior pillars with a 10 per cent cocaine solution. The patient is then placed behind the fluoroscopic screen and given 10 cc. of iodized oil and instructed to assume the same position that he assumed while inspiring the procaine solution. The entrance of the oil into the trachea and bronchi is observed fluoroscopically. The oil can easily be seen entering the trachea and bronchi, and will show any deviation from normal in the shape, contour and direction of the bronchi. The patient expectorates the saliva that has collected in the mouth, following which he aspirates another 10 cc. of iodized oil.

There are two points that must be emphasized in regard to the technic. First, the anesthesia obtained is only temporary, lasting not more than one or two minutes. For that reason it is absolutely necessary that as soon as anesthesia is obtained the patient be placed immediately behind the fluoroscopic screen and the oil introduced. Second, in order to minimize error in diagnosis, it is essential to observe the mode of filling of the bronchi with the oil fluoroscopically. If one depends on an interpretation of the roentgenogram following the introduction of the oil, mistaken diagnoses are sure to be made.

The passive technic is considered the ideal procedure to be used in bronchography. It is easy, simple, does not require any special instrumentation, and is neither unpleasant nor harmful to the patient. Because of its simplicity and harmlessness, one would not hesitate in advocating its use in a case of chronic bronchitis or as a therapeutic measure. I have employed this procedure in more than 1,500 instances without any bad results, and have never had a patient object to a refill when used therapeutically.

CONCLUSIONS

1. Following the bronchographic examination of a large number of patients suffering from so-called chronic bronchitis, evidence of bronchial dilatation was found in more than 90 per cent of the cases.

2. Cases of chronic bronchitis lasting over a period of months or recurrent attacks of acute bronchitis should be given the advantage of a bronchography.

3. The introduction of iodized oil into the tracheobronchial tree is of distinct therapeutic value not only in those cases of chronic bronchitis and recurrent attacks of acute bronchitis but also in the cases of definite bronchiectasis with large amounts of foul sputum.

4. The method used for introducing the iodized oil into the tracheobronchial tree should be simple; it should not require a great deal of technical skill; it should be easy to carry out, harmless and not unpleasant for the patient. This is best accomplished by the passive technic.

1551 Canal Street.

7. Singer, J. J.: Bronchography: Injection of Iodized Oil, Forty Per Cent, Arch. Surg. **14**: 167 (pt. 2, Jan.) 1927.

8. Ochsner, Alton: Bronchography Following the "Passive" Introduction of Contrast Media into the Tracheobronchial Tree, Wisconsin M. J. **25**: 544 (Nov.) 1926. Ochsner, Alton; and Nesbit, W.: Bronchography; Introduction of Iodized Oil into the Tracheobronchial Tree by the "Passive" Method, Am. J. M. Sc. **175**: 175 (Feb.) 1928. Ochsner, Alton: Bronchography According to the "Passive" Technic: The Method of Choice for the Roentgenologist, Radiology **11**: 412 (Nov.) 1928.

Abdominal Symptoms and Epilepsy.—Observation by the writer of a case of epilepsy which manifested obscure abdominal symptoms regularly from the age of 3 to 6, before grand mal occurred, and in which epilepsy had not been suspected previously, prompted the investigation of this subject. Levy and Patrick found that in 500 cases of essential epilepsy, sixty-four gave a history of recurrent attacks of symptoms which preceded the convulsions for varying periods. Thirteen of these cases presented symptoms which were essentially visceral in origin, including attacks of vomiting or belching, epigastric sensations, "queer" feelings in the abdomen, and sensation of rising gas. . . . Symptoms in some cases recurred for many years preceding the onset of the typical convulsions of epilepsy. These symptoms were generally characterized by regular occurrence, similarity of attacks, suddenness, brevity, and apparent lack of antecedent cause or relationship to the patient's physical condition.—Myers, Thomas: Obscure Abdominal Symptoms Preceding Epilepsy in Childhood, *Minnesota Med.*, July, 1929.

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DENTAL GRANULOMAS *

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The increasing importance of focal infections as etiologic factors in disease renders it necessary, from time to time, to take stock of current impressions and of their real significance. Possibly no one focus has received as much attention as have the teeth, and possibly no one focus has been so poorly investigated. The most comprehensive presentation of the topic from the etiologic standpoint is that of Greve [1] who, writing in 1926, was able to gather a bibliography of thirty-nine numbers. Greve's theory of the formation of the granulomas is a combination of the various theories which had been advanced at different times previous to his publication by Partsch, Dependorf, Euler, Grawitz, Malassey and others. Briefly presented, his explanation is that in the gum there are many embryonal rests of epithelial cells left there in the course of development of the tooth germ. If in the neighborhood of such a rest the pulp of a given tooth breaks down, granulations form on the outside of the tooth which enclose either certain lipoid-containing cells (so-called foam cells) or some of the embryonal epithelial rests. The centers of these areas of proliferation then undergo degeneration and liquefaction, and a cyst or granuloma forms.

Rohrer [2] also maintains that the granulomas are of embryonic derivation but that there is a constitutional predisposition to cyst formation. This predisposition becomes apparent when the area is subjected to insult such as caries, syphilitic infection and blows.

Fig. 1.—Midstage of a granuloma showing focal collection of round and plasma cells about central layer of epithelium; reduced from a photomicrograph with a magnification of 250 diameters.

Cook,[3] who investigated the bacteriologic content of a number of granulomas, states that nonhemolytic streptococci are the predominating organism.

The rather widespread custom of removing teeth for all sorts of conditions prompted us to survey the entire field again with a view to determining, if possible, the etiologic factors concerned in the development of granulomas, and to gathering evidence pointing to these granulomas as a source of focal infections. The material comprises 165 granulomas, 100 of which were examined histologically, and sixty-five in culture bacteriologically.

Fig. 2.—Fully developed granuloma showing central lining of stratified squamous epithelium; reduced from a photomicrograph with a magnification of 200 diameters.

In fifty-nine of the group, the incidence of sex and age was observed. Of this group, thirty-five were females and twenty-four were males. The average age of the females was 40.25 years, with the extremes 15 and 65 years. Of the males the average age was 44.79 years, with the extremes 18 and 65 years. The average age of the entire group was 42.08 years. The condition apparently occurs slightly more frequently in females than in males, and at a slightly younger age in the female.

Roentgen examinations were made in forty-four instances, the granulomas being found in the following locations: apex, nineteen; bifurcation, four; at both apex and bifurcation, fifteen; residual area, three, and at the stump of the apicoectomy, three.

In this group the following were the reasons assigned by the patient for seeking assistance: pain in thirteen instances; loose teeth in four; pain and loose teeth in six; roentgen examination, ten; roentgen examination and pain, one; pain and discharging abscess, two; referred by physician in search of focus of infection, eight.

The gross appearance of the granulomas may vary. In general they are spheroidal, varying in size from 2 to (in occasional instances) 15 mm. in diameter. Most often they are found at the apex of the root, but not infrequently they are also found at the bifur-

* From the Achelis Laboratory and Dental Division of the Lenox Hill Hospital.

1. Greve, H. C.: Studies of Granuloma, Deutsche Monatschr. f. Zahnh. **44:** 97-107, 1926.

2. Rohrer, Alfred: Die Ätiologie der Zahnwurzelcysten, Deutsche Monatschr. f. Zahnh. **45:** 228-231 (Oct.) 1927.

3. Cook, T. J.: Dental Granuloma, J. Am. Dent. A. **14:** 2231-2234 (Dec.) 1927.

cation of the roots of molars and premolars, and at the upper end of a retained root fragment; in several instances they have been observed by us situated laterally on the root where the root has been perforated during the process of drilling out the root canal. In one instance a granuloma was found attached to the projecting end of an embedded and retained broach. The masses are usually distinct from the tooth itself,

Fig. 3.—Area of so-called foam cells in area about the epithelium; reduced from a photomicrograph with a magnification of 200 diameters.

or, if attached, are readily peeled off. Larger ones, on section, show a cavity which is more or less filled with an oily fluid in which small granules are demonstrable.

Histologic examination shows a characteristic picture. Small granulomas consist of a few cell masses in the center. (The nature of these cell masses is impossible of determination in very small granulomas, but their subsequent development shows them to be epithelium.) These cell masses are surrounded by a loose, moderately cellular, connective tissue (fig. 1). There are no evidences of inflammatory reaction in the initial stages. In their later development the central cell masses arrange themselves as a stratified squamous epithelial layer. With further development (fig. 2) there eventually forms a central cavity which becomes more or less filled with epithelial débris, and this in turn undergoes liquefaction. The connective tissue capsule surrounding the epithelial layer becomes thicker and more cellular, and here and there larger and smaller foci of round and plasma cells appear. In some areas the connective tissue cells and fibers undergo a degeneration (fig. 3), the cells becoming foamy (so-called foam cells), and resembling those of the xanthoma of other regions of the body. Scattered throughout the connective tissue, one occasionally observes cholesterin crystal spaces (the cholesterin itself having undergone solution during the process of dehydration), and almost as frequently one encounters foreign body giant cells (fig. 4), also containing cholesterin crystal spaces.

The histologic picture up to this point is that of a chronic inflammation about an epithelial cyst. Acute inflammatory reaction may occasionally be observed (eleven out of 100 specimens) in the medium to larger sized granulomas. When this occurs the connective tissue wall about the epithelium becomes more or less diffusely infiltrated with polymorphonuclear leukocytes. Occasionally small foci of necrosis are demonstrable in the connective tissue. We have not observed in our 100 specimens any abscess development within the central cavity; the débris within this cavity is not pus but consists of epithelial squames which are more or less degenerated.

The development of the granulomas is partially explained by the development of the tooth. The epithelial lining of the gum becomes thickened in ridge formation and from the lower portion of this ridge buds develop, termed special dental germs. The connective tissue beneath the epithelium projects in papillary formation into the epithelium of the special dental germ and invaginates it. The dentin and pulp of the tooth are derived from the connective tissue papilla, but the form of the root is determined by the epithelial sheath, which is derived either from the enamel germ or from other epithelial cells which lie outside the enamel organ. After the complete deposition of the dentin, the epithelial sheath is attenuated, broken up, and for the most part absorbed. The relationship of the various layers in the fully formed tooth is shown in figure 5.

One group of investigators maintain that the granulomas are derived from embryonal rests, basing this statement on the observation that nests of epithelial cells are frequently observed in the deeper portions of the connective tissue from the jaw, and on the fact that in none of their studies were they able to demonstrate a direct connection between the epithelium lining the cavity of the mouth with that found in the granuloma, unless a sinus was present.

It seems to us that there is a more logical and a simpler explanation. It has been supposed that the

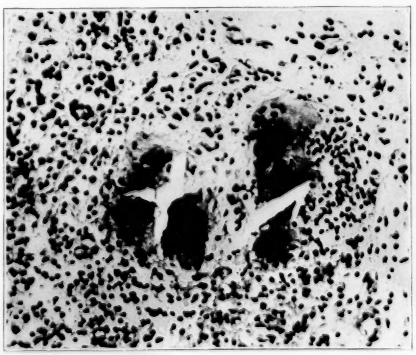

Fig. 4.—Giant cells in granuloma showing foreign body spaces of cholesterin spaces; reduced from a photomicrograph with a magnification of 350 diameters.

epithelial sheath which determines the form of the root more or less completely disappears after the root is fully formed. Sections of the root made along its long axis show groups of cells directly adjacent to the cementum, which differ in their morphology from the surrounding connective tissue cells, being shorter and plumper and taking a more basophilic stain than the surrounding cells. These cells are most frequently observed at the root apex. It is possible that they are

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the cells of the epithelial sheath which have become compressed and have assumed some of the characteristics of connective tissue. A condition analogous to this is not infrequently seen in malignant epithelial new growths, in which at times it is difficult to distinguish the compressed epithelium from connective tissue. In any event, whether these cells are epithelium or connective tissue, there is a singular regularity in the location in which the granulomas are found. As has already been stated, the most frequent site is at the apex of the root, where, incidentally, the cells which have been described are the most frequently encountered. We have also observed granulomas at the upper end of a root fragment. In this particular instance congenital malformation cannot explain the development, since the area occupied by the granuloma was at one time occupied by tooth. Perhaps the most convincing evidence is offered by several instances in which the side of the root was perforated in drilling out the root canal. At the point of perforation a granuloma developed; and in one instance this granuloma developed at the point of a retained broach.

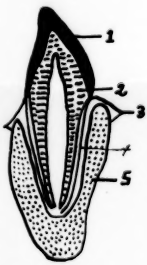

Fig. 5.—Schematic presentation of the layers of fully developed tooth; after Waldeyer: 1, enamel; 2, dentin; 3, cementum; 4, dental periosteum; 5, bone.

It is an observation which has been often repeated that when epithelium is irritated it will proliferate. In the depths of the tissue such epithelial proliferation almost invariably assumes a circular form with a central cavity, a so-called epithelial cyst. That these epithelial cysts, when situated in other locations, may subsequently become infected is also known. The epithelial cysts, called tooth granulomas, do not all become infected, as evidenced by bacteriologic cultures (thirteen sterile, of sixty-five cultures of granulomas) and by histologic examination (eleven showing acute inflammatory changes of a suppurative type out of 100 examined).

Organisms Found in Cultures of Sixty-Five Granulomas

Hemolytic streptococcus	2	Staphylococcus albus	2
Staphylococcus aureus	5	Nonhemolytic streptococcus	26
Nonhemolytic streptococcus and Staphylococcus albus	4	Streptococcus viridans	8
Pneumococcus	5	No growth	13

From the investigation reported here, we would conclude that the epithelial sheath of the developing tooth does not undergo absorption, but that the cells become metaplastic, assuming the form of connective tissue. At some subsequent time, in response to irritation, the irritation not always being evident with the present method of examination, the metaplastic epithelium resumes its proliferative powers and an epithelial cyst forms. This cyst may or may not become infected subsequent to its development. In our series, the mechanical irritation of a retained broach or of a tooth root fragment, and of perforation of the lateral wall of the root, have been sufficient to incite granuloma formation. It is very probable that other means of irritation are also capable of inciting the same reaction; and possibly further observation will result in placing these other types of irritation on record.

CONCLUSIONS

The so-called dental granuloma is primarily an epithelial cyst which most probably arises following irritation of the epithelial sheath of the tooth. The nature of this irritant may be various. The condition occurs slightly more frequently in women than in men. The average age of the patients is 40 in women and 44 in men. This epithelial cyst may, subsequent to its formation, become infected by a variety of microorganisms, of which the most common is the nonhemolytic streptococcus. Infection was demonstrable in 11 per cent of 100 granulomas examined histologically, and in 64 per cent of sixty-five granulomas examined bacteriologically.

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Clinical Notes, Suggestions and New Instruments

VENTRICULOGRAPHY WITHOUT AIR INJECTION *

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Ventriculography offers the neurosurgeon a very valuable means of localizing what would otherwise be an unlocalizable brain tumor. The operation, however, is attended with a certain amount of risk. It was with the idea of reducing this risk to a minimum that certain refinements in the technic of the operation were evolved.

In the early days of roentgenography of the ventricles, it was the custom to withdraw the ventricular fluid by a syringe through a cannula placed in the posterior horn of each lateral ventricle. As the fluid was withdrawn in 10 cc. amounts, it was followed by the injection of a similar amount of air. When no more fluid could be obtained, the cannulas were withdrawn and the wounds closed, and the patient was sent to the x-ray

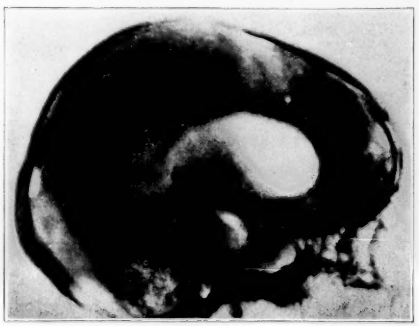

Fig. 1.—Lateral view: Occlusion of lower end of fourth ventricle by gliomatous cyst. Attention is called to the symmetrical dilatation of the entire ventricular system.

room. Probably the most serious objection to this method is the marked fluctuation in the intraventricular pressure occasioned by the use of the syringe. The withdrawal of 10 cc. of fluid from a small ventricle will create a negative intraventricular pressure and may easily cause bleeding from the delicate choroid plexus. As the syringe is removed from the cannula for the purpose of emptying, some air is sucked into the ventricle by the negative pressure. If, then, 10 cc. of air is injected with the syringe, the pressure is raised to a higher

* From the Neurosurgical Clinic of the University of Pennsylvania Hospital.

level than before the removal of the fluid. Even though frequent pressure readings are made, it is almost impossible to prevent marked fluctuations in the intraventricular pressure by this method. In addition, the frequent connecting and disconnecting of the syringe causes some movement of the cannulas and thus introduces another factor of cerebral trauma.

Fig. 2.—Anteroposterior view: same case.

TECHNIC

After passing through several phases of refinement, the technic of ventriculography now used in the University Hospital is as follows: The patient is placed on the table in the supine position. The shoulders are elevated on a pillow and the head is cocked forward by means of one or two small sand pillows under the occiput. The head of the table is tilted upward about 12 inches. A small perforation is made in the skull 6 cm. above the occipital protuberance and 3 cm. to either side of the midline. Cannulas are introduced into each posterior horn and the pressure is estimated with a mercury manometer. This is followed by the injection of 1 cc. of indigo carmine into one ventricle. After a few minutes have been allowed to elapse for the diffusion of the dye, the fluid is allowed to escape slowly from the two ventricles simultaneously. If dye appears in the fluid from the opposite ventricle, it is assumed that there is communication between the two. The fluid is carefully collected from each ventricle and measured. When the fluid ceases to flow, the head of the table is lowered to the horizontal position and the head rotated to one side, so that one cannula is more dependent than the other. The lower cannula then acts as a siphon and, as fluid flows from it, air is aspirated into the uppermost cannula. When the fluid again ceases to flow, the assistant is instructed to make intermittent jugular compression. With each compression of the jugulars, more fluid flows from the cannulas and, as the pressure is released, air is aspirated into the ventricles.

By this means it is possible to withdraw practically all of the fluid from the ventricular system, as may be seen in the accompanying illustrations. The withdrawal is accomplished slowly, and at the conclusion of the operation the ventricular pressure is that of atmospheric air. The patient's condition usually remains satisfactory and postoperative headache is reduced to a minimum.

If the patient's condition permits, it is easier to perform the procedure in the sitting position. In this instance, the evacuation may be accomplished by merely tilting the head backward and slightly to one side. A greater siphon effect may be obtained if a section of water manometer tubing is connected to the lowermost cannula and allowed to hang downward.

A NEW CYSTOSCOPIC-RADIOGRAPHIC TABLE *

OSWALD SWINNEY LOWSLEY, M.D., NEW YORK

The new cystoscopic-roentgenographic table presented here is constructed somewhat on the principle employed by me in a cystoscopic table devised and reported several years ago.

It is a high table, the top being 36 inches from the floor. This makes it unnecessary for the cystoscopist to bend over or lean forward in performing a cystoscopic examination. He may sit upright and the examination is not an uncomfortable event for him. It is not necessary for the patient to be put in a modified Trendelenburg position during the cystoscopic examination. In the latter posture, always necessary with low tables, gravity does not aid in the collection of specimens, and indeed reflux of bladder urine beside the catheters, thus contaminating the ureteral specimens, is possible.

The legs of the table are supplied with large 6 inch wheels at the head end of the table, so that it can be easily moved by grasping the table at its foot and wheeling it about much as one would a wheelbarrow. The foot of the table is supplied with wooden or rubber feet which keep the table absolutely immovable when these are placed on the floor.

A large drain pan is fitted into the framework of the table and remains on a slight slant in order to insure good drainage. This pan does not move with the top of the table.

There is a flat Bucky apparatus fitted into the top of the table which takes all of the standard size films.

The leg holders are constructed in such a manner that, when once fixed in a comfortable position for the patient, they cannot move. They are attached to the table by square posts. Above these posts there is a draw pin which allows the knee rests to swing around in a complete circle, but when once placed in position by a pin which is dropped into the holes devised for that purpose, the holders remain fixed. The knee rests are modified by being elevated both inside and out by an extra guard, which will not allow the knees to slip off.

The x-ray tube holder may be placed on either the right or the left side of the table and elevated or lowered, as desired. The tube holder may be placed in the desired position by turning a crank which moves it upward or downward, and it may also be moved freely from right to left. This arrangement gives every possible mobility to the tube holder, so that any position may be acquired.

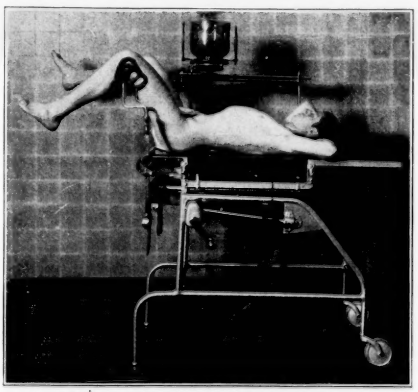

Fig. 1.—Patient in position for cystoscopy, the table being flat and the foot rests pushed back out of the way under the table.

The table is fitted with foot rests which hang down out of the way until needed; they can be adjusted to fit the patient's length and fixed by set screws, so that the patient will not move at all when the table is elevated into the erect posture.

* From the Department of Urology (James Buchanan Brady Foundation) of the New York Hospital.

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The entire top of the table with the x-ray tube holder moves into each new position desired simultaneously and without any change of position on the part of the patient. This change of position of the table is easily accomplished by turning the crank of the elevating device, which is simple in type and has no complicated part to get out of order.

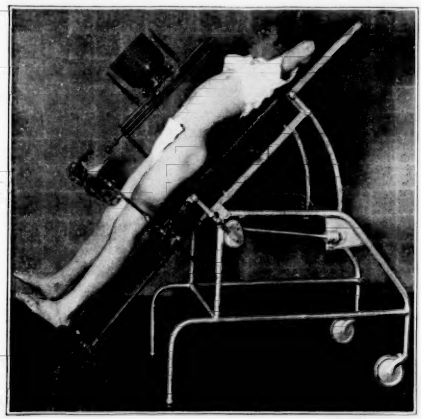

Fig. 2.—Patient in the erect posture with feet on the rests, which have been pulled out and adjusted. The x-ray tube holder is in position for taking necessary exposures.

I have made a great effort to keep this table as simple and inexpensive as possible, it being my belief that should any part of this apparatus get out of order the local ironworker could repair it, thus precluding any expensive bothersome shipping of the table back and forth to the factory.

A FRAME FOR THE TREATMENT OF FRACTURES OF THE SHAFT OF THE FEMUR IN CHILDREN, BY VENTRAL SUSPENSION *

VOIGT MOONEY, M.D., PITTSBURGH

The frame shown in the accompanying illustrations was developed in Dr. David Silver's clinic at the Allegheny General Hospital, for the treatment of fractures of the upper and middle thirds of the shaft of the femur in children under 6 years of age.

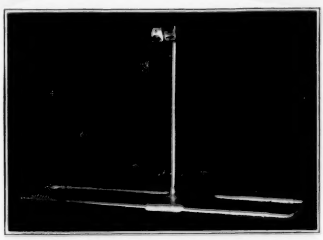

Fig. 1.—The all metal frame before adjusting. Attention is called to the arched piece with buckles which is fashioned to receive the adhesive tape of the suspended limb. The removable metal pan rests at the middle of the frame.

This all metal frame was designed to get a more consistent ventral suspension of the affected limb and to avoid the rotation of the fractured femur on its axis. It is adjustable to the size of the patient and is free from pulleys or ropes. The frame is constructed from three-eighths inch gas pipe, drilled to one-half inch, and one-half inch bar. The horizontal bars and the perpendicular bar slip into the pipes and are made fast at desired dimensions by cotter pins, which pass through holes at measured spaces. All parts are coated with tin to avoid rust. Figures 1 and 2 illustrate the frame before and after adjusting. The width of the horizontal part does not change. A removable metal pan rests at the middle of the frame to allow the use of the bed pan.

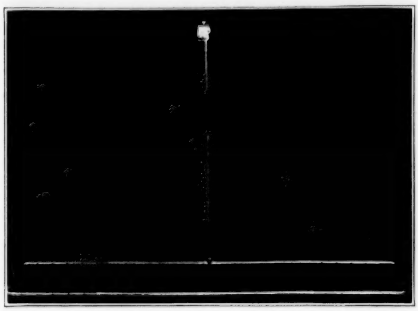

Fig. 2.—The frame after adjusting. The adjustment of horizontal bars and the perpendicular bar should be noted.

Figure 3 shows the frame in actual use. The affected limb is seen ventrally suspended by adhesive straps passing through the buckles on the arched piece which is fixed to the adjustable perpendicular bar. The buttock of the affected side is thus lifted high away from the frame and rotation of the limb is prevented.

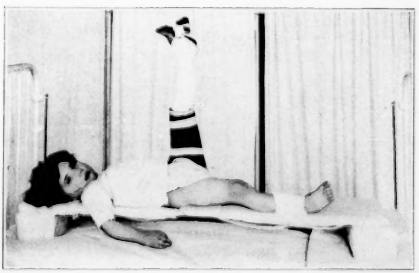

Fig. 3.—The frame covered and in actual use. The affected limb is ventrally suspended by means of adhesive strips, which pass down the limb to the site of fracture. The buttock of the affected side is lifted high away from the frame. The other leg is anchored to the frame. The shoulders are also bound down. Thus the apparatus with the patient is portable. The frame can be used equally well in nursing infants. The baby may be fed and kept clean without removal from the frame.

The weight of the pelvis serves as countertraction. Coaptation splint wood, over felt, is fitted tightly around the limb at the site of fracture to avoid angulation of the bones. A fracture of either the right or the left femur can be treated on this frame, it being necessary only to change the position of the patient's head. The patient, of course, as a rule is not confined to this frame any longer than three weeks, after which a hip spica is applied.

The Negro and Tuberculosis.—The negro race in the United States is notoriously susceptible to tuberculosis, and, doubtless, poverty and lack of hygiene are contributing factors. —Shattuck, G. C., *New England J. Med.*, June 13, 1929.

* From the Allegheny General Hospital.

THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION

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SATURDAY, JULY 20, 1929

THE OFFICE OF MEDICAL EXAMINER

The colonization of this country by a population predominatingly British in origin led to the adoption by the original colonies of the English office of rural county coroner.[1] As population spread westward, this office was made part of the governmental system of those newer states which later became part of the union. In none of the states has the office undergone statutory revision that would better fit it to perform the important duties at present demanded of it. Most valid among the criticisms which have been made against the office of coroner is the fact that it demands of an individual of whom no especial professional qualifications are asked the performance of legal and medical duties which require great technical knowledge. The medical duties in particular have become increasingly important and difficult as the work of the office has increased through concentration of population.

That the office of coroner is not the only agency through which the problems constantly undertaken by it can be solved is well enough known to the student of forensic medicine. Repeated investigations have been unanimous in decreeing that it is the least efficient of all possible methods for performing the functions usually demanded of it and that it should be abolished and should be replaced by some more efficient agency. Successful attempts in this direction have been made in a few localities, but their number is surprisingly few in view of the success they have had. It is perhaps more than a mere coincidence that the first state to take a forward step in solving the problems presented by the office of coroner should have been the second oldest of the original thirteen colonies and the commonwealth which has in its historical background Faneuil Hall, the Boston Tea Party and Bunker Hill. In 1877, Massachusetts, instead of attempting to improve the office of coroner by amending or modifying legislation, an admittedly hopeless task, abolished the office entirely. The legal duties of the office were transferred to already existing and adequately functioning judicial and prosecuting agencies, and the medical duties were vested in a new office, that of medical examiner, the original enactment requiring of the medical examiners that they be "able and discreet men, learned in the science of medicine." The fundamental improvement brought about by this law was that it placed the highly technical medical duties of the former coroner's office in the hands of medical examiners, of whom a higher degree of scientific knowledge, interest and efficiency might be asked and expected than of the usual type of coroner. Other decided improvements of the Massachusetts medical examiner system, as compared with the coroner system prevailing in most other states, are that the medical examiners are appointive rather than elective officials, and that the term of office is seven years instead of the usual two or four year term of coroner. In the light of present-day conditions the Massachusetts law, as passed and as it stands today, is not perfect. It requires that there be two medical examiners, maintaining independent offices, in the county of Suffolk, in which Boston is situated, and as many in each of the other counties as the county board of commissioners may determine. The two Suffolk County examiners are on a salary basis; the rest, of whom there are seventy-two, are on a fee basis. Merging of the two Suffolk County offices into one with a chief medical officer, and consolidation of the seventy-two outlying medical examiner districts into a much smaller number, each in charge of a salaried medical examiner, would make for greater efficiency.

The next most important adoption of the medical examiner system was by the city of Greater New York in 1915. Previous to that time the county coroners of the various political units which were combined into the greater city acted independently. The incompetence, inefficiency and worse of these coroners was scathingly denounced by the commissioner of accounts in a report,[2] issued earlier in 1915, which was an important factor in the replacement of the coroner system by the medical examiner system. The New York law is an improvement over that of Massachusetts. A single office of chief medical examiner performs, efficiently and thoroughly, the important medicolegal duties of a jurisdiction which has an area of 316 square miles and a population of more than six million people. It not only does those things customarily required of the office of coroner but furnishes, in addition, important data relating to vital statistics and scientific medicolegal information which no political office of coroner could hope to give. The office is under civil service, the tenure being indefinite, and removal being possible only by the municipal civil service commission after trial on charges filed by the mayor. Of the office of medical examiner of New York City, the report[3] on "The

1. The Office of Coroner, editorial, J. A. M. A. **92**: 2024 (June 15) 1929.

2. Wallstein, L. M.: Report on Special Examination of the Accounts and Methods of the Office of Coroner in the City of New York, New York, 1915.

3. Schultz, O. T., and Morgan, E. M.: The Coroner and the Medical Examiner, Bull. 64, National Research Council, Washington, D. C., 1928.

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Coroner and the Medical Examiner" made by the National Research Council in 1928 says: "In the character and volume of the work done, in the working facilities and budget allowed it, in its functioning in the investigation of crime, in its cooperative relation to other agencies, in the service which it gives to the public, and in its freedom from political interference, the office of medical examiner of New York City is the most outstanding agency devoted to forensic medicine in the United States." Of great importance is the fact that the office does a much larger volume of work much more efficiently than in the days of the coroner system, at a smaller cost than did the office of coroner which it superseded.

The most recent adoption of the medical examiner system, by New Jersey [4] in 1927, is of interest because the application of the system differs somewhat from that of Massachusetts and New York City. In Massachusetts, the medical examiner system was made mandatory throughout the state. In New York it was made obligatory for the most populous urban community in the country. In New Jersey, the adoption of the system was made optional with the two counties of the first class and was precluded from the less densely populated counties. Why such a distinction was made between the more populous and the more rural counties is difficult to understand, unless perhaps it was felt that in the latter the medical examiner system does not function so well as in centers with a heavy urban population. This is true in Massachusetts and will probably be true elsewhere if county lines are to be made the basis of medical examiner districts. The rural county should not be the unit of the medical examiner system, if the laws of the state will permit the consolidation of two or more counties into medical examiner districts; such an obliteration of county lines is possible in some states in the establishment and maintenance of sanatoriums for tuberculosis. With modern roads and automobile transportation, much larger areas can be more quickly covered by a single medical examiner than was the case when Massachusetts adopted its state-wide medical examiner system.

That the office of coroner is an inefficient and inadequate agency of criminal justice has been asserted by every organization that has made impartial investigation of the situation. That the office of medical examiner is a vastly better agency, as that office functions in Suffolk County, Mass., in New York City and in Sussex County, N. J., must likewise become apparent to everyone who gives serious thought to the matter. The demands of criminal justice and the advancement of forensic medicine require the replacement of the medieval office of coroner by the more modern office of medical examiner in populous urban centers and some adaptation of the medical examiner system that will make it equally applicable to rural communities.

4. An Act Concerning Chief Medical Examiners, Coroners and Morgue-Keepers in Counties of the First Class in the State, Official Copy Reprint, Assembly 233, State of New Jersey, Feb. 7, 1927.

PERITONITIS AND PERITONEAL IMMUNITY

Inflammation of the peritoneum continues to be a common malady, not because its tissue is peculiarly susceptible to infection but because, as Hartwell [1] has remarked, it is so often subject to attack. Another recent writer [2] has amplified this impression by pointing out that absolute asepsis cannot be maintained when the bowel must be incised or resected, so that peritonitis is still a relatively common postoperative complication. The development of bacterial peritonitis and its outcome depend on various factors involved in what is termed immunity. Phagocytic reactions occur early. Even the endothelial cells of the peritoneal covering may undergo marked proliferation and assume a phagocytic function. Other factors tend to facilitate the localization of the process, so that an abscess forms. In this the peritoneal "free lance," the omentum with its loose connective tissue and fat, well vascularized and with ample lymph drainage, is likely to come into play so as to limit the spread of the infection. The outcome depends, as Hartwell has expressed it, on the relative virulence of the attack and the strength of the defense. If the organisms prove too toxic, the localization is lost and extension takes place. If the defense is sufficiently potent, the abscess may be completely walled off and may in rare instances become sterile.

The idea of increasing the immunity of the peritoneum at once suggests itself. Earlier attempts to increase the intraperitoneal leukocytosis by the use of sterile irritants showed that the surgical mortality was not influenced by this method of preoperative preparation.[3] It has remained, therefore, to attempt to mobilize other sorts of defensive forces than those represented by phagocytic cells alone. This involves the colon bacilli and enteric streptococci, the common microbic organisms concerned in fecal soiling of the peritoneum. These are often found in the blood when death occurs early after the fecal contaminations of the abdominal cavity.

At the Mayo Foundation, Herrmann [2] has ascertained in animal experiments that intraperitoneal injections of combined vaccine of streptococci and colon bacilli are strikingly effective in affording protection against subsequent fecal soiling. This protective effect is probably due to the development of specific local peritoneal immunity. Herrmann has further stressed the view that the development of bacterial peritonitis is in reality a defensive tissue reaction. The conception of the occurrence of the local immunity of a serous membrane is not new. From Herrmann's point of view peritonitis, induced by the reaction of the peritoneum to

1. Hartwell, J. A., in Cecil's Textbook of Medicine, Philadelphia, W. B. Saunders Company, 1927.
2. Herrmann, S. F.: Experimental Peritonitis and Peritoneal Immunity, Arch. Surg. **18**: 2202 (May) 1929.
3. Aschner, Bernhard; and von Graff, E.: Klinische und experimentelle Beiträge zur Vorbehandlung von Laparotomien mit subkutaner Injektion von Nukleinsäure, Mitt. a. d. Grenzgeb. d. Med. u. Chir. **22**: 10, 1911. Von Graff, E.: Zur Vorbehandlung von Laparotomien mit subkutaner Injektion von Nukleinsäure, ibid. **24**: 466, 1912.

bacterial infection, is a defensive process. Its development depends on the presence of immunity. This immunity probably is locally increased resistance of the peritoneum rather than general humoral immunity. Such immunity can be built up by intraperitoneal vaccinations. Relatively low peritoneal immunity leads to peritonitis, while relatively high peritoneal immunity leads to recovery without peritonitis.

HANGING WITH AND WITHOUT THE "DROP"

Injuries of the neck produced when persons are legally executed by hanging with the "drop," or "fall," as is the practice in the British Empire and some of our states, are rarely duplicated in other forms of hanging. Just what these injuries are is not altogether clear, and apparently their pattern is not uniform. Dislocations and fractures of some of the upper two or three cervical vertebrae, bruising of the medulla spinalis, lacerations of the inner coats of some of the large arteries, and contusions of the cervical muscles have been noted. It is known that fracture of the tooth-shaped upright process of the epistropheus, or its dislocation with rupture of the strong ligament that binds it close to the dorsal arch of the atlas, does not take place as frequently as was formerly believed.

The bibliography of suicidal, accidental or homicidal hanging, in which, as a rule, no "drop" takes place, is a large one. To account for death in these non-judicial hangings, pressure on blood vessels in the neck, pressure on nerves, and mechanical obstruction of breathing have been proposed, and separate and exclusive claims have been made for each. In still other contributions it is admitted that two or all three of these major effects may aid in causing death, and contentions have arisen over the measure to be assigned to each. It is generally accepted that the soft palate, tongue and larynx are pushed up and back so as to cut off respiration effectively when junction of the body and its suspensor are in the "typical" position on one side behind or otherwise close to one ear. Access to air, it has been shown, has not been obstructed for persons who have hung themselves after tracheotomy, with the tubes in place below the loop. In some of the ancient forms of execution, the trachea was cut or stabbed before the criminal was suspended by the neck.

Observations have been made of a short stoppage of the heart at the moment of suspension said to be caused by irritation of the vagus, and inability to resuscitate persons cut down almost at once has been referred to pressure on the nerves. Others have called attention to the superficial location of the superior laryngeal nerves and their important connections with cardiac ganglions and nerve plexuses. Death usually results in from five to ten minutes after unconsciousness is lost in these hangings without the "drop," and the heart may continue to beat for eight or ten minutes after cessation of respiration. Therefore resuscitation is possible, but the artificial respiration with which it is begun should be started not later than five or six minutes after suspension.

Most accidental hangings are of children. They often give occasion to suspicions of murder. Bruises of the hands and feet from convulsions are valuable indications of suicidal hanging, and an adult is rarely murdered by hanging without clear evidences of a fight. In order to mislead investigation, bodies of persons killed before are sometimes suspended after death. In persons resuscitated, difficulty in breathing or in swallowing may persist for a long time. The furrow is tender and swollen, and lacerations and contusions of the tongue, inflammatory swellings of the pharynx, fractures of the horns of the thyroid cartilage and other injuries require time to heal. The voice may remain hoarse, and severe dyspnea or even death may follow paralysis of the posterior crico-arytenoid muscles, which normally open the glottis for air. Bronchitis, cervical cellulitis, hemoptysis, parotitis and retropharyngeal abscesses have been noted after recovery from hanging.

The range of symptoms caused by interruption of the blood supply of the brain is remarkable, as might be expected. Dominating all the others are unconsciousness, which may last for hours or days, and convulsions, which come on usually when the revived blood supply to the brain begins to take effect. Spasms therefore do not occur at once when a person is cut down but start when breathing is restored; they may occur as late as the next day. It is not surprising that memory for what transpired just before the hanging should be completely lost. With other criminal acts committed at the time of the hanging, this retrograde amnesia may have important medicolegal bearings. Resuscitation is not always permanent, but delayed death after hanging is rare. A case has recently been reported by Zeitler,[1] who reviews the literature briefly. In some cases the prolonged unconsciousness ending in death is not unlike the fatal poisoning from carbon dioxide.

Reference is not made by Zeitler to thorough examination of the brain of any of these who have died a few or more days after hanging and temporary survival. Such studies might possibly determine what really constitutes consciousness. They certainly would provide valuable information regarding the variations with which the different parts of the human brain give way to a diminished blood supply, the location of the places most susceptible to violent and sudden interruption of the oxygen-bearing current and therefore presumably the most highly differentiated phylogenetically. The types of retrogressive change and selective paths of degeneration in such brains offer interesting opportunities for investigation of function.

1. Zeitler, G.: Ein Beitrag zur Kenntnis der Spättodesfälle nach Erhängen, Deutsche Ztschr. f. d. ges. gerichtl. Med. **12**: 380 (Sept. 4) 1928.

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Current Comment

PAROXYSMAL HEMOGLOBINURIA

The transitory excretion of a dark colored urine, particularly during the winter months, following exposure to cold or exertion serves to call attention to the peculiar pathologic condition commonly designated as paroxysmal hemoglobinuria. There is a considerable literature on the subject, dating back more than three fourths of a century, most of it referring to countries other than the United States. The theories of the nature of the immediate changes that lead to hemoglobinemia as the result of hemolysis of the erythrocytes in the patients have been manifold. Prominent is Donath and Landsteiner's [1] demonstration in 1905 of the existence in the blood serum of patients with paroxysmal hemoglobinuria of a thermolabile autohemolysin and isohemolysin or amboceptor which, on chilling, becomes fixed to the red corpuscles, sensitizes them and, by permitting the complement to be attracted to the corpuscles at a higher temperature, renders hemolysis possible. Puris [2] has recently offered the criticism that so-called paroxysmal hemoglobinuria, especially the type caused by chilling, is not really paroxysmal in character. The term is a misnomer, as the condition can always be produced under certain well defined circumstances in patients who are subject to it. The condition apparently is due to the presence of a definite special hemolysin in the blood serum of the patient, which becomes active at low temperatures. Suitable exposure of the patient always tends to evoke hemoglobinemia, and if a number of attacks are repeated in rapid succession, a state of anemia may persist. Syphilitic infection has long been held responsible for the presence of the special hemolysin. Failure to effect cures by means of antisyphilitic measures has led Puris to the assumption that toxins arising from other infections may be capable of bringing about paroxysmal hemoglobinuria.

THE BASAL METABOLISM OF OVERWEIGHT CHILDREN

The consideration of the physiologic background of obesity would be greatly simplified if all cases could be explained on the basis of overfeeding, physical inactivity, or both of these factors. There are too many apparent objections to warrant such generalizations. Instances of constitutional or pathologic obesity not due to overeating or underexercising are familiar to every physician. Endocrine disturbances occasionally lead to undue gains in weight; one need merely recall the condition sometimes described as adiposogenital dystrophy. In the cases of endogenous obesity of frank glandular etiology, a lowered basal metabolic rate has often been observed. Under such conditions it is easier to understand how the decrease in chemical changes leading to loss of energy may give rise to gains in body weight that could not be secured otherwise on the same food intake. Whether the more conventional type of overweight—so-called exogenous obesity—may be explained by a lowered basal metabolism, with its resulting conservation of energy and food fuel in the body, is not so clear. There are both proponents and opponents for the thesis that in such ordinary types of obesity the basal metabolism is lowered. If it is true that "obesity is one of the most common diseases," as Du Bois has designated it, the preponderance of evidence from the best metabolic investigations seems to furnish proof of the normality of the basal metabolism in simple obesity of adults.[1] And now the extensive studies on children conducted by Topper and Mulier [2] at the Mount Sinai Hospital in New York warrant essentially the same conclusion. This is important because overweight in childhood is currently regarded with far more tolerance or even favor than undue size is in the later years of life. According to Topper and Mulier, the basal metabolism of overweight but otherwise normal children is usually normal, with a tendency toward a high normal rate. There is an increased basal metabolic rate in a certain percentage of overweight children which may be partly accounted for on a basis of continued overfeeding. It has, indeed, been asserted that the level of the basal metabolic rate is not an absolute one but is higher or lower according to the caloric intake. Furthermore, when the prepubertal period is under consideration it must not be forgotten, as Topper and Mulier point out, that during this age period many changes that are of significance are taking place in the child. There is an increase in growth, an increased activity of the endocrine glands and an awakening of the sexual life, all of which probably exert some influence on the basal metabolism of the child.

1. Donath, J., and Landsteiner, K.: Über paroxysmale Hämoglobinurie, Ztschr. f. klin. Med. **58**: 173, 1905.
2. Puris, A. M.: Paroxysmal Hemoglobinuria, Am. J. Dis. Child. **37**: 1027 (May) 1929.

1. Du Bois, E. F.: Basal Metabolism in Health and Disease, Philadelphia, Lea and Febiger, 1927.
2. Topper, Anne; and Mulier, Hannah: Basal Metabolism of Children of Abnormal Body Weight: I. Basal Metabolism of Overweight Children, J. A. M. A. **92**: 1903 (June 8) 1929.

Association News

MEDICAL BROADCAST FOR THE WEEK

The American Medical Association Morning Health Talks and Evening Health Hints from Hygeia

The American Medical Association broadcasts daily at 11:15 o'clock in the morning, central daylight saving time, over Station WBBM (770 kilocycles, or 389.4 meters).

The program for the week of July 22-27 is as follows:

July 22. "Some Mail Order Frauds," by Mr. Bliss Halling.
July 23. "Your City and Your Health," by Miss Lois Stice.
July 24. "Classifications of Medical Schools," by Dr. N. P. Colwell.
July 25. "International Understanding and Good Will," by Dr. John M. Dodson.
July 26. "Medical News," by Dr. J. F. Hammond.
July 27. "Saving Babies with Mother's Milk," by Dr. John M. Dodson.

Evening Health Hints from Hygeia, 8 o'Clock, Central Daylight Saving Time

July 22. Country School Forms Hand Washing Brigade.
July 23. Protecting Children Against Diphtheria.
July 24. Healthy Persons May Carry Disease Germs.
July 25. Training the Baby.
July 26. Daily Disinfection Is Most Effective.
July 27. Keeping Out Rats.

PROCEEDINGS OF THE PORTLAND SESSION

MINUTES OF THE EIGHTIETH ANNUAL SESSION OF THE AMERICAN MEDICAL ASSOCIATION, HELD AT PORTLAND, OREGON, JULY 8-12, 1929

HOUSE OF DELEGATES

First Meeting—Monday Morning, July 8

The House of Delegates convened in the Grand Ballroom of the Multnomah Hotel and was called to order at 10 a. m. by the Speaker, Dr. F. C. Warnshuis.

Preliminary Report of the Reference Committee on Credentials

A preliminary report of the Reference Committee on Credentials was submitted by the chairman, Dr. J. D. Brook, Michigan, who reported that there had been filed with the committee registrations totaling eighty-eight members with the proper credentials.

With a quorum present, the Speaker declared the House duly constituted and open for the regular transaction of business.

On motion of Dr. Brook, seconded by Dr. A. E. Bulson, Indiana, and carried, the list of delegates in the hands of the Reference Committee on Credentials was considered the roll of the House for the first meeting.

Adoption of Minutes of Minneapolis Session

The Speaker stated that the minutes of the Minneapolis session had been printed and a copy sent to each member of the House of Delegates registered at Minneapolis and asked whether any corrections had been received. The Secretary had not received any corrections, and the minutes as printed were adopted.

ADDRESSES OF OFFICERS

Address of Speaker F. C. Warnshuis

The Vice Speaker, Dr. Allen H. Bunce, Georgia, took the chair and the Speaker read his address. When the Speaker asked the delegates to rise and bow their heads a moment in memory of departed friends the House arose in silent tribute to the departed members. The Speaker then continued reading his address, which was referred to the Reference Committee on Reports of Officers:

For the seventh consecutive year your sufferance permits me to preside at the sessions of this deliberative and legislative body of our association. I am sincerely appreciative and grateful for the expressed confidence.

Seventeen years ago I served my first term as delegate. Barring the two sessions during the war, my attendance at these annual sessions has been uninterrupted. I dearly prize the friendships that have been formed. It is with eager anticipation that the journey to our annual meeting place is made because of the inspiration and pleasure that attends meeting those who constitute this House.

However, each session carries with it moments of sadness when the absence of this or that fellow member is noted and I learn that in the interval between sessions they have answered the final summons and now rest in the Valley of Eternal Sleep. I experience that regret more keenly than ever at this session. In recent months Drs. J. A. Witherspoon, S. W. Welch, Horace M. Brown and W. J. Ferguson have gone on before us. We would be derelict did we not pause a moment to voice and record our tribute.

As a delegate for many terms and as President, the services rendered by Dr. Witherspoon were unfailingly subscribed to advance the interest of our association.

And who can ever banish the memory of Horace M. Brown? Of outstanding individualism and with attention arresting qualities he served and achieved for the good of all our members.

Dr. S. W. Welch possessed a sterling personality. He was intently interested in human health conservation and brought to our sessions the fullest measure of guiding helpfulness that enabled us the better to discharge our duties.

Dr. W. J. Ferguson served for years as one of the delegates from Missouri. His pleasing personality endeared him to us all. He, too, served unselfishly for the common good and exemplified our ideals.

Our sympathy goes forth to those who were near and dear to these distinguished Fellows.

REFERENCE COMMITTEES

Your Speaker appointed the members of reference committees from a list of delegates reported as of June 1. They reflect a diligent effort to accord just recognition to every state. In making appointments, cognizance was taken of each state's representations on our councils, Board of Trustees and permanent committees.

Much depends on the thoroughness with which each reference committee discharges its duties. Your Speaker urges that so far as possible these committees give due notice of meeting places and hours in order that delegates may be accorded hearings, thereby eliminating lengthy floor arguments. It is further urged that the committee's reports be specific and void of indefinite or blanket recommendations or endorsement of referred resolutions and reports.

SEATING OF DELEGATES

Our Constitution in article 5, section 2, specifically provides that the House of Delegates is to be composed of delegates *elected* by constituent associations. Chapter 11, section 1, of the By-Laws requires that a delegate must have been a Fellow for at least two years. Chapter I, section 4, of the By-Laws is very specific in its requirement that a delegate once seated cannot transfer his seat to his alternate.

No one can be more eager than your Speaker in a desire to accord representation to every state association. To be well represented, however, is a responsibility of each state. Each state, likewise, must assume the responsibility for failure of its duly elected delegate or alternate to attend the sessions of the House of Delegates.

At our last annual session the House accepted the report of its committee on credentials and seated three individuals as delegates who did not conform to the provisions of our Constitution and By-Laws. Your Speaker is of the opinion that that was a very dangerous procedure and created a precedent that already has been cited in state medical meetings.

If the provisions of our Constitution and By-Laws are too stringent, relief may be secured by amending those sections. Until such enactments are recorded, your Speaker has no other alternative than to apply and enforce the provisions set forth in our Constitution and By-Laws. Consequently the Committee on Credentials is instructed to seat only those delegates who present certified credentials from their state organization attesting their election. Under our By-Laws and rules the committee may seat, with the approval of the House, any alternate for any delegate that may be absent. Our rules are very specific in prohibiting the seating of individuals who have not been elected as delegates or alternate delegates by their state organization.

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In the discharge of his duties, your Speaker solicits your supporting cooperation so that the work of this session may be expedited and the trust that is reposed by those whom we represent may be commendably justified.

Reference Committees

The Speaker resumed the chair and appointed the following reference committees:

SECTIONS AND SECTION WORK

T. B. Throckmorton, Chairman..Section on Nervous and Mental Diseases
Isaac A. Abt.....Section on Diseases of Children
David Ross.....Indiana
G. P. Johnston.....Wyoming
Wells Teachnor, Sr.....Ohio

RULES AND ORDER OF BUSINESS

F. A. Carmichael, Chairman.....Kansas
J. H. Cannon.....South Carolina
Frederick Epplen.....Washington
H. J. Brown.....Nevada
R. W. Fouts.....Nebraska

MEDICAL EDUCATION

J. C. Litzenberg, Chairman.....Minnesota
J. F. Smith.....Wisconsin
E. P. Sloan.....Illinois
Samuel P. Mengel.....Pennsylvania
J. W. Vander Veer.....New York

LEGISLATION AND PUBLIC RELATIONS

C. E. Mongan, Chairman.....Massachusetts
W. Albert Cook.....Oklahoma
W. F. Braasch.....Minnesota
Victor G. Vecki.....California
Arthur W. Booth.....New York

HYGIENE AND PUBLIC HEALTH

Grant C. Madill, Chairman.....New York
H. G. Stetson.....Massachusetts
Southgate Leigh.....Virginia
S. C. Red.....Texas
James R. Bloss.....West Virginia

AMENDMENTS TO THE CONSTITUTION AND BY-LAWS

E. C. Thrash, Chairman.....Georgia
Randolph Winslow.....Maryland
C. T. Pigot.....Montana
W. R. Steiner.....Connecticut
C. F. Moll.....Michigan

REPORTS OF OFFICERS

A. E. Bulson, Chairman.....Indiana
J. N. Hunsberger.....Pennsylvania
Charles J. Whalen.....Illinois
John W. Preston.....Virginia
J. W. Burns.....Texas

REPORTS OF BOARD OF TRUSTEES AND SECRETARY

W. F. Donaldson, Chairman.....Pennsylvania
J. R. Kevin.....New York
B. R. McClellan.....Ohio
L. L. Sheddan.....Tennessee
William Kuykendall.....Oregon

CREDENTIALS

J. D. Brook, Chairman.....Michigan
Martha Welpton.....California
O. M. Gilbert.....Colorado
George R. Proctor.....Idaho
Charles MacLachlan.....North Dakota

MISCELLANEOUS BUSINESS

T. O. Freeman, Chairman.....Illinois
M. L. Stevens.....North Carolina
E. J. Goodwin.....Missouri
W. Blair Stewart.....New Jersey

MONUMENTAL BUILDING

William Allen Pusey, Chairman.....Illinois
N. B. Van Etten.....New York
A. E. Bulson.....Indiana
J. F. Burnham.....Massachusetts
Albert Soiland.....California
Holman Taylor.....Texas
John S. Helms.....Florida

Address of President W. S. Thayer

The Speaker introduced the President, Dr. W. S. Thayer, Baltimore, who delivered the following address, which was referred to the Reference Committee on Reports of Officers:

The period of my presidency, which I have appreciated more than I can tell you, has gone too fast. During the year I have visited a number of state and local organizations in different parts of the country. Everywhere I have met men of the same sort, earnest, interested intelligently and actively in the many problems that confront medicine and public health. Sometimes there have been active differences of opinion as to some policies of the Association, but it would be a poor world in which everybody agreed—and a poor heaven!

I have been greatly interested in the character of these meetings. In some, the communications have been made largely by members of the Association with full general discussion. In some the papers have been miscellaneous. In some the discussions have been limited to special subjects. Sometimes the program has been largely made up of more or less formal papers by local or foreign talent, delivered almost as postgraduate lectures and sometimes without discussion. In some, the meetings have continued throughout the day and evening. In others, the meetings have been held in the mornings alone, the afternoons and evenings going to entertainments. I have thought much about these meetings, especially in view of the great popularity of the so-called postgraduate courses and clinical congresses that have been held in different parts of the country. It is quite true, as Dr. West has pointed out, that the multiplication of medical meetings has become a real complication in the existence of many physicians. I, myself, am a member of more societies than I can attend. I am not at all sure that state societies singly or cooperating by meeting in some central locality, as in the case of the annual meeting last year of the state societies of Montana, Idaho and Wyoming, might not profitably use their state meetings as an occasion for organizing programs quite as interesting and as valuable as those provided by some outside so-called postgraduate gatherings. The time-taking character of local hospital staff meetings is, again, as West has pointed out, a serious matter for the physician whose time is always limited. But here, once more, proper cooperation might do much, and local arrangements by which district or county medical societies might combine their meetings with some of these special hospital gatherings might be time-saving and of real value to both hospitals and the local medical profession.

I have been, as I was in the beginning, deeply impressed with the earnestness, loyalty and good judgment with which the various officers and councils of the Association have worked and are working. Especially fortunate is it, I think, that the Council on Medical Education and Hospitals should have taken up the more serious study and classification of hospitals—a work admirably begun by a special body to which the thanks of the whole profession are due, but one which should be a function also of that organization which represents the American medical profession as a whole.

The cooperation of the Association with the authorities of the Surgeon General's Library in the editing of the *Quarterly Cumulative Index Medicus* has been admirably carried out. In the past, America has led the world in medical bibliography. The *Index Catalogue of the Library of the Surgeon General's Office* has been, since its foundation in the seventies by John S. Billings, the standard volume of reference for the world. Alongside these volumes sprang up in the eighties the *Index Medicus*, a monthly fasciculus of reference to the world's medical literature, edited by Billings and Fletcher, later by Fletcher and Garrison, and then by Garrison. At first, this was nearly complete as a volume of reference to the current medical literature of the time. Interrupted in the late nineties because of lack of financial support, it was continued for several years by the French, and later reestablished with financial assistance through generous subventions by the Carnegie Institution. Admirable and valuable as has been the *Index Medicus*, the amount of literature has grown so enormously that long since it lost its early completeness. Well edited though our present *Quarterly Cumulative Index Medicus* is, it deals with a relatively smaller proportion of the world's medical literature than it did at the

outset. It is true that much current medical literature is of little value and really not worth indexing; many journals, especially society proceedings, are difficult of access and are not often sought by the practitioner. But in these recondite sources, often in foreign languages, there is much that is really important for the student of special subjects, and nowhere is it gathered together.

The *Index Catalogue* and the *Index Medicus* have been publications of international significance. Nationally they have put a stamp on American medical literature. Largely through their existence the better American medical literature stands out as the best "documented," if I may use a convenient if not elegant Gallicism, the best "documented" medical literature in the world. No literature has been so catholic in its references, so free from chauvinism and international jealousy.

It seems to me that, if at any time the funds should be available, it would be a great opportunity for this association to take up the torch and do a world service by seeking to make the *Index Medicus* as relatively complete as it once was. That the Trustees have considered this question and interested themselves in it seems to me wise and farsighted.

There is another question with relation to medical bibliography which may arise in the future—a question of the utmost gravity. It is rumored that with the end of the present series the *Index Catalogue of the Library of the Surgeon General's Office* may come to an end for want of appropriations.

The abandonment of the *Index Catalogue* would be a national and international tragedy. Many years ago the medical profession, through its earnest efforts, saved the life of this greatest monument of American medicine. If the time again comes when its continuance is threatened, we must, individually and collectively, use every effort to preserve for ourselves and for the world its greatest medical treasure.

If Congress knew what the *Index Catalogue* was, there would never be a question as to the necessary appropriations. And now, gentlemen, will you permit me to say to this body a word of appreciation and a word of caution. In the years that I have served with this association, I have been sincerely impressed by the freedom and vigor of the discussions in this House, and at the same time by the fundamental restraint that has marked your actions. These are difficult and anxious days in the world at large, critical days, perhaps, in the history of parliamentary government, of free government by the majority. Here in America we have gone along for upwards of a hundred and fifty years with what we have believed to be a rather happily devised free government, a government by the majority tempered by safeguards allowing a fair measure of local independence. On this model has been formed the constitution of our organization. Government by the majority is wholesome and beneficent so long as it is tolerant and considerate. The strength of our government in the past has been in its elasticity and in that it has allowed much latitude in local self-control, in that it has recognized the right of local communities to settle those questions which relate to their everyday life.

But there are lengths beyond which a majority may not go. When in a country like ours the national government attempts to legislate for the whole country as to what we may or may not eat or drink, as to how we may dress, as to our religious beliefs or as to what we may or may not read, this is to interfere with rights that are sacred to every English-speaking man. This is no longer republican government; it is tyranny. In the long run we English-speaking people will not endure tyranny. For immediate concentrated mass action such as is necessary in time of war, such government is necessary. We accept it; we *demand* it. But in time of peace we insist on certain local and individual liberties which we regard as rights.

The Congress of the United States is not made up of men who desire to establish a tyranny. Far from it! But in certain ways, against the warnings of wise and temperate men such as the Chief Justice, they have passed laws which are intemperate, meddlesome and may justly be regarded as tyrannical. As a nation, we have of recent years set a rather sorry example in the passage of inconsiderate, ill considered and intolerant prescriptions and prohibitions, prescriptions and prohibitions some of which may be proper enough in certain localities where they represent the desire of the majority, but which, when applied to the country at large, interfere with the personal liberties of the people. Such laws cannot be enforced; they defeat their own ends. Intolerance is the most fatal enemy of liberty.

No legislative body can fail to make mistakes. At times this House has made mistakes—and, to its credit, has acknowledged them. But at the end of my term I desire to testify to my admiration for the spirit shown by the officers who are the managers and directors of your association and for the temperance and good judgment of this body. You will forgive me for saying that at this hour when as a nation we are in some respects setting a rather sad example of reckless and intemperate law making, it is especially desirable that, while discussing matters with all freedom, we should try hard not to be carried away by the spirit of the time; that we should carefully consider all sides of the questions before us. Let us try to find the happy mean and realize that, with regard to most questions, tolerance and moderation and consideration for local opinion and conviction, and wise general recommendation, often have greater force than hasty and ill considered decrees and prohibitions.

This body in the past has set an enviable example of wisdom and restraint. Let us continue to be true to our tradition.

Address of President-Elect M. L. Harris

The Speaker introduced the President-Elect, Dr. M. L. Harris, Chicago, who delivered the following address, which was referred to the Reference Committee on Reports of Officers:

The House of Delegates is the most important medical body in this country. Composed as it is of members from every branch of the profession and including the Army, the Navy and the Public Health Service, its opinions and policies are not based on, or influenced by, any one specialty, but represent the consensus of thought of the entire profession. Much confusion in the minds of laymen is frequently caused by the assumption that an opinion expressed by individual physicians or by an association of restricted membership represents the views of this association. It may be said, however, that this House of Delegates is the only body authorized to speak for the profession as a whole on all matters of general application. Every member of the House should feel the responsibility that rests on him to give his best thought and attention to the many problems that come before the House for action. It is desirable that the business of the House be transacted as expeditiously as possible, but as the session is quite short, great care should be exercised that matters of importance be not too hastily acted on without careful deliberation. The reports of the officers and of the various councils as published in the Handbook should be read by every member before coming to the meeting, in order that he may be familiar with them so that they need not be read in meeting but referred at once to their respective committees. I should like to suggest, therefore, that the committees to which the reports of officers, councils, and such other matters as have been clearly set forth in the Handbook are referred be requested to meet as soon as the House is fully organized for business. This would give them most of the forenoon to consider and to formulate any recommendations they may wish to make concerning the matter referred to them and enable them to report at the afternoon meeting when there would be time for the discussion of any questions which the committees may desire to present. In this way, more time would be available for the discussion of important matters that may come before the House, which are often permitted to go by default owing to lack of time.

We are all more or less familiar with the question of the cost of medical care or the cost of being sick, which is agitating the public so much at the present time. Articles are appearing almost daily in the popular magazines or the public press, which give expression to the layman's point of view on the subject. In some of these articles, considerable criticism is directed at the medical profession, and the belief is often expressed that it is largely responsible for the present unsatisfactory situation. The national Committee on the Cost of Medical Care is undertaking a thorough study of all the factors that enter into the question, and it is earnestly hoped that the profession will

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heartily cooperate with the committee in its effort to reach correct conclusions. One of the complaints frequently made against the profession is the lack of suitable provisions for the distribution of high class medical services to the mass of people at a cost within their means. This I hold to be an undisputed obligation of the profession, and I have proposed a plan which I believe will enable it to meet this obligation fully, and which will result in great benefit to the masses as well as to the profession.

This plan, which has already been published in THE JOURNAL, consists, in brief, in each county medical society incorporating and forming a medical center with a headquarters properly equipped for the diagnosis and treatment of all varieties of ambulatory patients. The organization should be in a sense a pay clinic owned and controlled by the profession. Every person receiving services should pay. Those who are able to pay regular fees should have their own physician, as at present, while those not able to pay regular fees should be treated at the center and should be charged a fee depending on their economic status and the character of the services rendered. Those who are unable to pay anything are charges on the community and should be paid for by the community, at rates to be agreed on by the community and the organization. The center should be managed by a board of directors, which should arrange for the time and service that each is to devote to the work of the center. The income, which will be considerable, after paying the running expenses and upkeep, will go toward paying in an equitable manner those who do the work. Services eventually may be extended to patients of the same class at their homes or in hospitals; in fact, the hospitals, which should be controlled and managed by the profession, should form a part of the general organization. In the large cities, more than one center may be developed, as may be necessary, so as to care for those living in all sections of the city. The whole scheme depends simply on the ability of the profession to organize on a business basis, and to manage its own business of caring for the sick rather than to allow it to pass into the hands of lay organizations or to be controlled by governmental enactment. The importance of the subject demands the attention and thoughtful consideration of this House of Delegates.

REPORTS OF OFFICERS

Report of the Board of Trustees

Dr. J. H. Walsh, Secretary, read an abstract of the report of the Board of Trustees.

It was moved by Dr. A. T. McCormack, Kentucky, seconded by Dr. A. E. Bulson, Indiana, and carried, that the Speaker appoint a special committee to which should be referred the portion of the report of the Board of Trustees dealing with the housing of our headquarters.

The report of the Board of Trustees, except that portion dealing with the housing problem, was referred to the Reference Committee on Reports of Trustees and Secretary. That portion dealing with the housing problem was referred to the Reference Committee on Monumental Building.

Report of the Secretary

Dr. Olin West, Secretary, presented his report, which was referred to the Reference Committee on Reports of Board of Trustees and Secretary.

Report of Judicial Council

Dr. G. E. Follansbee, Chairman, presented the report of the Judicial Council, which was referred to the Reference Committee on Legislation and Public Relations.

Report of Council on Medical Education and Hospitals

Dr. Ray Lyman Wilbur, Chairman, presented the report of the Council on Medical Education and Hospitals, which was referred to the Reference Committee on Medical Education.

Report of the Council on Scientific Assembly

The report of the Council on Scientific Assembly was referred to the Reference Committee on Sections and Section Work.

NEW BUSINESS

Dr. William Allen Pusey, Illinois, presented the following resolution, which was referred to the Board of Trustees:

Resolved, That the Board of Trustees of the American Medical Association appoint a committee to direct the preparation and publication of a comprehensive history of the Association; that it appropriate such funds as are found necessary to meet the expense of this work, and that this work be begun as soon as possible, in order that it may be carried to completion thoroughly and without haste by the time of the dedication of the contemplated new building of the Association, which will mark an epoch in its history.

Dr. William Allen Pusey, Illinois, presented the following resolution:

WHEREAS, The House of Delegates at its last annual meeting, without dissent, voted that the practice of medicine was not the proper function of corporations, and that the American Medical Association should use its utmost endeavors to stop this growing abuse; and

WHEREAS, There is a rapidly growing tendency of organizations controlled by laymen to enter into the practice of medicine; and

WHEREAS, There are numerous new problems arising from this movement having to do with the relationship of physicians with each other, with the public, with industry and with the government; therefore be it

Resolved, That the Judicial Council of the American Medical Association be asked to present to the session of the House of Delegates at the meeting of 1930 a comprehensive statement for the guidance of the American Medical Association concerning the practice of medicine by corporations, by clinics, by philanthropic organizations, by industrial organizations, by demonstrations and by similar organizations, and concerning the relationship of physicians thereto; and that this present House of Delegates meet in special executive session to give preliminary consideration to this subject.

Dr. Pusey explained that there were two unusual provisions in this resolution: one that it be considered by the House this year, and the other that the House go into executive session.

The resolution was adopted and the House decided that it would go into executive session at 3 o'clock.

Dr. J. N. Henry, Pennsylvania, Chairman, read the report of the Committee on the Care of Indigent Physicians, which was referred to the Board of Trustees.

Dr. G. H. Mundt, Illinois, presented the following resolution, which was referred to the Reference Committee on Legislation and Public Relations:

WHEREAS, The publishers of the Classified Telephone Directory (the Red Book) have embarked upon a plan in various cities to charge a fee for the listing of all telephone numbers of persons not original subscribers to the telephone service; and

WHEREAS, Many professional men are associated in groups with two or more members using the same telephone number, one of whom is the nominal subscriber, the others being required to pay an annual fee for listing this joint telephone number with their respective names in the official telephone directory; and

WHEREAS, It is the opinion of the House of Delegates of the American Medical Association that in paying the latter charge telephone users ipso facto become entitled to the same service given any other subscribers, which includes the free listing in the Classified Telephone Directory (the Red Book); therefore, be it

Resolved, That as long as the publishers of the Classified Telephone Directory (the Red Book) will list the names of all ethical physicians free of charge such use of their names be permitted; but should a charge be made for such listings the House of Delegates will recommend to the various local societies composing the American Medical Association that the listing of their members' names in the Classified Telephone Directory (the Red Book) be discontinued.

Dr. Albert Soiland, California, presented the following resolution, which was referred to the Reference Committee on Hygiene and Public Health:

WHEREAS, The Aeronautics Branch, Department of Commerce, has organized a Medical Service for the physical examinations of civil pilots and prospective pilots, in the interests of safety; and

WHEREAS, The physical standards adopted are in keeping with those adopted universally, and have reduced aircraft accidents from physical causes to a minimum; and

WHEREAS, The department has required these examinations to be made only by designated physicians in the interests of uniformity and control and in accordance with the custom adopted for the Army and Navy and in other countries; and

WHEREAS, The selection of examining physicians by the department has been based on training as flight surgeons or its equivalent, or on group examinations by specialists, a high standard of examination has resulted; and

WHEREAS, The department requires that all examiners hold the degree of Doctor of Medicine, be licensed to practice medicine under the laws of their respective states, and further requires that the appointees be recognized as ethical practitioners in their respective localities, thereby supporting the high standards advocated by this association; be it

Resolved, That the American Medical Association at its stated assembly in 1929 endorses the medical work of the Department of Commerce, its methods of physical examination and its method of selection of medical

examiners, and urges that the same high standards be continued and offers the support of the American Medical Association in furthering the specialty of aviation medicine; and be it further

Resolved, That a copy of this resolution be sent to the President of the United States, the Secretary of Commerce, and the secretary of each state medical society.

Dr. J. W. Van Derslice, Illinois, presented the following resolution, which was referred to the Reference Committee on Hygiene and Public Health.

WHEREAS, Numerous publications and reports indicate the increasing menace to health and to life from carbon monoxide gas as a constituent of illuminating gas and as a by-product of the combustion of gasoline in automobiles;

WHEREAS, Reports appear indicating the danger to health and to life of gases such as methyl chloride, ethyl chloride, sulphur dioxide and other gases used in electrical refrigeration;

WHEREAS, The advancements of chemical and physical sciences introduce into industry and life other preparations which may be dangerous to health; therefore, be it

Resolved, That the Board of Trustees of the American Medical Association constitute a committee to prepare a report as to the extent of these menaces and the necessary steps to be taken to protect the public in connection therewith, and that arrangements be made for wide publication of these facts so that the public may be informed fully regarding such dangers.

Dr. James R. Bloss, West Virginia, presented the following resolution, which was referred to the Reference Committee on Medical Education:

WHEREAS, There has been no reduction in the maternal mortality rate in this country from childbirth since 1915; and

WHEREAS, These deaths are largely due to such preventable conditions as puerperal infection, toxemia and hemorrhage, conditions which the properly trained graduate should be able to prevent or manage; and

WHEREAS, In the last analysis it is the general practitioner who does and will attend the great mass of lying-in women; and

WHEREAS, The time allotted for the teaching of obstetrics in the curriculums of the several medical schools has been cut down and is inadequate to drill thoroughly the student in this important major; be it

Resolved, That the House of Delegates, representing as it does the medical practitioners of the United States, request the Committee on Medical Education to investigate the present teaching of obstetrics in this country, and so readjust the curriculum that the hours allotted for the teaching of obstetrics be equal to those allotted to the teaching of surgery.

Three resolutions, sent to the Secretary by Dr. Shurly, Michigan, and published in the Handbook, pages 32 and 33, were introduced by Dr. C. S. Gorsline, Michigan. The first resolution was referred to the Reference Committee on Medical Education, the second to the Board of Trustees, and the third also to the Board of Trustees.

Dr. E. C. Thrash, Georgia, presented the following amendment, which was referred to the Reference Committee on Amendments to the Constitution and By-Laws:

Resolved, That in chapter XIX on Amendments to By-Laws, the word "three fourths" be changed to "two thirds."

The sentence containing this work now reads: "These By-Laws may be amended by a vote of three fourths of the House of Delegates." After amendment it will read: "These By-Laws may be amended by a vote of two thirds of the House of Delegates."

The resolution submitted by Dr. Joseph F. Smith, Wisconsin, and published in the Report of the Secretary, was referred to the Board of Trustees.

The amendment to the Constitution and By-Laws in the Secretary's report was also referred to the Reference Committee on Amendments to the Constitution and By-Laws.

Dr. Frank Smithies, Section on Gastro-Enterology and Proctology, presented the following resolution, which was referred to the Board of Trustees:

WHEREAS, The officers, Trustees, members of standing committees and headquarters employees of the American Medical Association have all or part of their expenses incident to attending the annual session of the Federacy paid from the common treasury; and

WHEREAS, Members of the House of Delegates of the Federacy, particularly those delegates from the sections devoted to scientific work, are compelled to finance their attendance at the annual session through state society aid or entirely from their own personal funds; and

WHEREAS, The members of the House of Delegates by their attendance at the annual session perform functions most necessary and important to the progress and welfare of the Federacy, and do so at a considerable sacrifice of time and money; be it therefore

Resolved, That the Board of Trustees of the American Medical Association do immediately adopt a procedure whereby, from the funds of the Federacy, each member of the House of Delegates be allowed annually a sum equivalent to his expenditures for transportation, housing and maintenance, during each annual session in which he attends and performs his official duties.

Dr. T. O. Freeman, Illinois, presented the following resolution, which was referred to the Reference Committee on Medical Education:

WHEREAS, Many hundreds of small hospitals throughout the country are greatly handicapped through their inability to determine the proper standards for their conduct; and

WHEREAS, Many hospitals believe that at this time there are several organizations endeavoring to aid in hospital standardization, and not entirely along the same lines; and

WHEREAS, Those in charge of these institutions are desirous at all times of giving the best service possible to those whom they serve and give the best training possible to their pupil nurses; and

WHEREAS, It is the general opinion of staff members and those in authority in our smaller hospitals that the American Medical Association, whose membership and fellowship are composed of physicians in all branches of medical and surgical work, is naturally the proper organization to standardize our hospitals; therefore, be it

Resolved, That the Council on Medical Education and Hospitals of the American Medical Association be urged by this House of Delegates to make a survey of the needs of our smaller hospitals, render all possible assistance to all such institutions desirous of improving their system of records, and improving their usefulness to those whom they serve; and be it further

Resolved, That the Council on Medical Education and Hospitals offer its assistance and assurance of cooperation to the various state registration departments so that they will know the proper place to procure such assistance as they may desire in their endeavor to classify accredited hospitals.

Dr. J. C. Litzenberg, Minnesota, presented the following resolution, which was referred to the Reference Committee on Hygiene and Public Health:

WHEREAS, The Minnesota State Medical Association in annual meeting assembled in St. Paul during May, 1928, has carefully considered the recent letter from the headquarters of the American Red Cross at Washington, D. C., stating that Red Cross nurses are authorized to nurse patients under the care of osteopaths and chiropractors; therefore, be it

Resolved, That the delegates from Minnesota to the House of Delegates of the American Medical Association be instructed to present the following resolution to the said House of Delegates for action:

Resolved, By the House of Delegates of the American Medical Association, that it disapproves the policy of the American Red Cross in officially authorizing Red Cross nurses to nurse patients under the care of a member of any cult.

Dr. Southgate Leigh, Virginia, announced to the House the serious illness of Dr. Charles O'Donovan, for many years one of the distinguished delegates from the state of Maryland, and moved that the Secretary be instructed in behalf of the House of Delegates to send to Dr. O'Donovan a telegram of sympathy and good wishes. Seconded by Dr. Arthur J. Bedell, New York, and carried.

Dr. C. B. Cooper, Hawaii, read the following communications, which were referred to the Committee on Miscellaneous Business:

DR. C. B. COOPER, Honolulu: HONOLULU, June 14, 1929.

The Pan-Pacific Union, under whose auspices the Pan-Pacific Surgical Conference is convening in Honolulu, August 14 to 24, asks that as a delegate to the American Medical Association to be held in Portland, Ore., July 8 to 12, you will kindly extend an invitation to members of the Association to attend this first gathering of surgeons of Pacific countries.

WALLACE R. FARRINGTON.
President, Pan-Pacific Union.

DR. C. B. COOPER, Honolulu: HONOLULU, June 14, 1929.

As director of the Pan-Pacific Union, under whose auspices the Pan-Pacific Surgical Conference is convening in Honolulu, August 14 to 24, I wish to kokua the invitation which Governor Wallace R. Farrington, as president of the Pan-Pacific Union, has extended to the delegates of the American Medical Association in session at Portland, Ore., July 8 to 12, to attend the First Pan-Pacific Surgical Conference.

ALEXANDER HUME FORD.
Director, Pan-Pacific Union.

Dr. A. E. Bulson, Indiana: A motion has just been passed that the Secretary send a telegram to members of the House of Delegates who are ill. It strikes me that it would be an appropriate thing for the Secretary to send a telegram to other members of the House of Delegates who may be ill, so there will be no partiality shown, and that any of the delegates from the states or provinces or sections of the American Medical Association who know of the illness of such delegates, inform the Secretary so he can send such telegrams.

The Speaker: If there is no objection, the Secretary will consider himself so instructed.

The meeting adjourned at 11:15.

The House met in executive session Monday afternoon at 3 o'clock to consider the resolution introduced by Dr. William Allen Pusey, Illinois, concerning the practice of medicine by corporations.

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Second Meeting—Tuesday Morning, July 9

The House of Delegates was called to order at 9:30 a. m., by the Speaker, Dr. F. C. Warnshuis.

The Speaker announced that, if there was no objection, the signed attendance slips of the individual delegates would constitute the roll call of the House.

It was moved by Dr. J. R. Bloss, West Virginia, seconded by Dr. Albert Soiland, California, and carried, that the House dispense with the reading of the minutes.

Supplementary Report of the Reference Committee on Credentials

Dr. J. D. Brook, chairman, reported that 138 delegates had filed satisfactory credentials.

Dr. Brook recommended that Dr. Harry Eno, Isthmian Canal Zone, be seated. Dr. Eno had been properly certified as a delegate but lost his credentials.

On motion of Dr. Mather Pfeiffenberger, Illinois, seconded by Dr. A. J. Bedell, New York, and carried, Dr. Eno was seated by the Committee on Credentials.

Dr. Brook stated that a request had come from Dr. Donald Macrae, Iowa, who was ill at home, that Dr. Oliver Fay be seated in his place. The Speaker ruled that Dr. Fay could not be seated. After discussion by Dr. T. B. Throckmorton, Section on Nervous and Mental Diseases, and Dr. Isaac A. Abt, Section on Diseases of Children. Dr. C. E. Humiston, Illinois, moved that the ruling of the Chair be sustained. Seconded by Dr. Mather Pfeiffenberger, Illinois, and carried.

Supplementary Report of the Judicial Council

Dr. G. E. Follansbee, chairman, read the following report of the Judicial Council, which was received and filed, and placed in the minutes:

To the Members of the House of Delegates of the American Medical Association:

The following resolution, submitted to the House of Delegates at Minneapolis by Dr. C. J. Whalen, delegate from Illinois, was referred on recommendation of the Reference Committee on Legislation and Public Relations to the Judicial Council:

WHEREAS, It has come to our attention that students in universities and colleges are being given free medical care without regard to the ability of the individual to pay for the same, therefore be it

Resolved, That the Judicial Council be requested to investigate the matter as to the extent to which this practice prevails.

In accordance with the purport of this resolution, the Judicial Council addressed 136 letters to colleges and universities throughout the country and received 111 replies. The information secured through these communications may be summarized as follows:

Sixty-nine colleges give physical examinations to their students. Some of these are given periodically, some annually, and some only at time of entrance of students.

Sixty-one colleges provide students with medical advice. In two cases advice is given by the college nurse.

Nine colleges provide vaccination and other forms of immunization.

Forty-three colleges provide their students with medical treatment.[1]

Seventeen colleges provide their students with surgical treatment.[1]

Eleven colleges provide first aid and emergency treatment only.

One college gives diagnostic service only.

One college provides unlimited medical service to its students.

Five colleges have a clinic service. (One has this service only, and one provides "unlimited" clinic service.)

Two colleges have an outpatient service.

Six colleges allow university physicians (or nurse) to make professional calls to the homes or rooms of students.

Four colleges provide prescriptions and drugs free. (One provides drugs at cost.)

Twenty-six colleges maintain their own hospitals for ill students.

Forty-five colleges maintain infirmaries.

(Three have both a hospital and an infirmary; in one, the hospital is a ward in the university hospital, and in another it is an isolation hospital only.)

1. Medical and surgical treatment, in all cases, is given only in "minor ailments" and "ordinary illnesses."

Twenty-nine colleges provide hospital care for students for from one day to an unlimited period.

3 wks.	2 wks.	Less than 2 wks.	Unlimited Time	Miscellaneous	Time not Stated
1	5	3 for 10 days 2 for 1 week 1 for 5 days 2 for 3 days 1 for 2 days	2	1, to sum of $20 1, at nominal charge 1, to certain limit	2

Twenty-three colleges provide infirmary care for from two days to an unlimited period.

2 wks.	1 wk.	Less Than 1 wk.	Miscellaneous	Time Not Stated
4	2	1 for 4 days 2 for 2 days	1, limited time	13

Eleven colleges provide a dispensary service. (Two provide this service only.)

Sixty colleges maintain nurses. (These are full-time nurses in all cases.) (One hundred and sixteen nurses are employed, in all, in the 111 colleges from which replies were received.)

Ninety-six colleges employ physicians either full time or part time or both, as follows:

Both Full and Part Time	Full Time Only	Part Time Only
26	35	35

(Two hundred and sixteen physicians are employed, in all, in the 111 colleges from which replies were received. Of these, eighty are full-time, and 136 part-time. Of the 136 part-time physicians, the University of California has fifteen—specialists from the medical school staff for consultations—and the University of Minnesota has twenty-two—specialists, who also practice privately, for consultations.

While it appears to be true that practically all of the institutions replying to the communication of the Council allow students to choose their own physicians, only fifty-one of the institutions from which replies were received stated definitely that free choice of physicians was permitted without restrictions. Seven of these, however, keep reference lists of physicians for the students' assistance; one of these seven "tries to control choice"; one, "in cases of protracted illness"; one, even in physical examinations; two, with benefit of college hospital; one, "in consultation"—"no student can continue under medical care without knowledge of the university physician"; one, subject to approval of medical director. (In all cases in which student chooses outside physicians, he is responsible for fees.)

Four colleges state that they have no health service. (One of these does give physical examinations on entrance.)

Sixty colleges state definitely that the payment of special fees is required in connection with the health or medical service provided by these institutions, the amount of the fees collected varying from $1 to $20 a year.

AMOUNTS OF SPECIAL FEES AND NUMBER OF COLLEGES CHARGING THEM

$5	$10	Up to $5	Up to $10	More Than $10	Sum Not Stated
17	8	* 1, $0.80	4, $6.00	1, $12	7
		† 2, 1.00	1, 6.50	⊙ 1, 20	
		2, 2.00	2, 7.00		
		‡ 5, 3.00	1, 8.00		
		1, 3.75	1, 8.50		
		2, 4.00	1, 9.00		
		2, 4.50	1, 9.60		

* The university charging the $0.80 fee (which is allotted from a $1 laboratory fee—not stated whether annual or otherwise) also supports its service by means of appropriations from the university funds.

† One of the colleges charging the $1 fee gives dispensary treatments and charges $1 a day for infirmary service. The other provides infirmary care and some medical service.

‡ The payment of the $3 fee in one college—this fee is optional—entitles the student to membership in the "Students' Health Association," without which membership the student is not entitled to benefits of hospital care for two weeks, diagnostic, prescription service, etc.

⊙ The university charging the $20 special fee also charges $6 a day for infirmary service after four days.

In eleven colleges the health service is financed entirely by means of appropriations from the university funds.

In four, fees are charged as well as appropriations made from university funds.

Six colleges require no special fee but state that a sum to cover the service is included in the tuition fee.

Twenty-eight colleges do not state how the health service is financed, and four have no health service.

(In one instance, an allotment of the annual incidental fee is made, but the students are not informed regarding what proportion of the incidental fee is devoted to the support of the students' health service. The president of this university says: "We once had a special student health fee but we felt it a better policy to do away with this special health fee which the students realized they were paying and for which they might feel they were getting or should get a great deal of service.")

One college president wrote, "The majority of our students look upon this service as an economical form of health insurance."

In at least one instance, the physical examination service is provided for the faculty also.

In most cases in which the college does not maintain its own hospital, hospitals are available for the use of ill students, the service usually being given at a lowered cost.

A number of colleges state that their student health service is operated on a deficit.

Replies received indicate that the officers of colleges and universities throughout the United States feel that it is the duty of the college to look after the physical welfare of its students, and one gets the impression from reading these replies that it is intended to extend the health and medical services already established by educational institutions throughout the country, and that in those universities and colleges which have not established such services the tendency is to make such provision as soon as possible.

Supplementary Report of the Board of Trustees

Dr. J. H. Walsh, Secretary, read the following report:

1. *Resolution of Dr. Frank Smithies, Illinois, on Appropriation of Expenses for House of Delegates.*—The Board of Trustees recognizes the important services rendered by members of the House of Delegates. The Board recognizes also that in many states provision is made for reimbursing delegates to cover such expenses. In view of many principles and complications involved, the Board does not consider it expedient or wise to adopt this recommendation.

2. *Resolution on History of the American Medical Association.*—The Board of Trustees approves the recommendation relative to the publication of a History of the American Medical Association to be available in connection with the dedication of a new building, and, if adopted by the House of Delegates, will take such steps as may be necessary to bring this matter to a successful completion.

3. *Resolution on Investigation of Advertising of Hospitals.*—The Board of Trustees would call attention to the fact that the Council on Medical Education and Hospitals publishes each year a list of accredited hospitals and that some four hundred hospitals have already been omitted from such accredited list because of unethical practices. The Board would also call attention to the fact that the American Medical Association has available in its headquarters office extensive data concerning hospitals in the United States, together with such advertising matter and newspaper clippings as are mentioned in the resolution. The problems involved by this resolution are properly matters for the Council on Medical Education and Hospitals of the Association, and the Board will refer this resolution directly to the Council.

4. *Resolution on Expenses of Secretaries of Sections.*—The Board of Trustees would call attention to the fact that an honorarium already is provided for secretaries of the sections to cover expenses of their work on programs, and that there has not yet come to the attention of the Board any statement from a secretary indicating that that honorarium is insufficient. The Board stands ready to make proper adjustment in any instance in which such matters may be brought to its attention.

5. *Resolution on Publication of Papers in the Journal.*—The question of publication of section papers in THE JOURNAL is covered fully by the By-Laws of the Association. The Board of Trustees considers it extremely inexpedient to modify these sections of the By-Laws.

6. *Resolution on Handbook of Physical Therapy.*—The Board of Trustees would call attention to the fact that such a handbook as is requested by this resolution is already in course of preparation and that several chapters thereof have already been printed in THE JOURNAL.

7. *Report on Physicians' Home.*—The Board of Trustees approves the report of this committee, which follows, and recommends its adoption by the House of Delegates:

REPORT OF COMMITTEE ON HOME FOR INDIGENT PHYSICIANS

July 2, 1929.

Your committee, in approaching the problem placed in its hands, found considerable difficulty in determining a method of procedure because of the fact that an investigation throughout the county and state and territorial societies had been made but a scant two years before, and as all the data from these sources were placed in the hands of the committee, it did not seem either right or proper to repeat the investigation after such a short interval. The committee, therefore, decided that its best proceeding was to act as a referee in the matter and brought its investigation more or less up to date by consulting with the secretaries of all the state and territorial societies.

The evidence is overwhelming that there is no need for a large scale benevolent program at this time, such as has been suggested. It is well known, too, that the overhead expenses of similar homes are staggering in proportion to the numbers cared for and there is a great deal of tendency in modern times to distribute benevolent funds in a way more like those arrangements now in vogue in many county and state societies. The charter of the A. M. A. does not, in our opinion, permit of such a branching out and the serious question of the duplication of benevolent homes would have to be most carefully and thoroughly studied before such a vast undertaking was made part of the A. M. A. business.

With these considerations, then, your committee is, first, opposed to the establishment by the A. M. A. of a home or homes for indigent physicians.

Second, it is the opinion of the committee that it is not, nor should it be, a function of the A. M. A. *at this time* to undertake the care of indigent physicians in any way.

The officers, trustees and members of the House of Delegates have long been aware of the generous experiment which a group of physicians in New York State has been responsible for. We are referring to the Physicians' Home, Inc. Last year and again this year, this group of charitably minded men have offered to the A. M. A. their total assets, amounting roughly to a sum equal to $250,000. This sum is offered only with the obligation that the A. M. A. will found and conduct a home for indigent physicians and their dependents and with the further understanding that the Association will proceed to the founding of many such homes throughout the nation.

Inasmuch as the investigation of the former committee as well as of this committee does not show a demand for such a benevolent program at this time, the chairman of this committee unofficially discussed with the Physicians' Home, Inc., directors a possible compromise whereby something satisfactory to both sides might be agreed upon. In substance, the suggestion made was as follows:

That the Physicians' Home, Inc., should present to the A. M. A., as trustee, their assets derived from their investments and the sale of their properties; that this sum should be maintained in trust with accruing interest for a period of five, ten, twenty-five or even fifty years, or until such time as the Trustees of the A. M. A. should determine that a real need was apparent for the relief of indigent physicians; secondly, that this trust should be flexible and that at the end of some agreed upon time, if no real need for relief such as has been described was disclosed, the trustees of the fund might, at their option, devote the income to some great welfare or scientific project which, in the light of the best judgment that could be brought to bear on the matter, might promise the greatest good to the greatest number—again with the understanding that such allocation be not final but that, should conditions of indigence among physicians and their dependents become urgent, this fund could be rediverted into such channels; that the present guests of the Physicians' Home, Inc., should be cared for by the A. M. A. under this agreement; and that the fund might be added to by gifts of generous donors, both medical and lay. It might also become an interesting service for the Women's Auxiliary to try to augment such a fund to make it really a great power for good.

Your committee regrets that, after due consideration, the suggestion, informally made, was formally rejected. The committee has come to its conclusions with a very live appreciation of the great sympathetic appeal of a plan to care for the less successful brethren, whether in the conventional sense they are worthy or not; but, in the light of the evidence, it could not act otherwise.

On motion of Dr. E. C. Thrash, Georgia, seconded by Dr. A. E. Bulson, Indiana, and carried, the first section of the report, concerning the resolution of Dr. Smithies, was adopted, after discussion by Dr. Frank Smithies, Section on Gastro-Enterology and Proctology; Dr. A. E. Bulson, Indiana; Dr. V. G. Vecki, California, and Dr. E. C. Thrash, Georgia.

On motion of Dr. Albert Soiland, California, seconded by Dr. A. J. Bedell, New York, the second section of the report,

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pertaining to the resolution on the history of the American Medical Association, was adopted.

On motion of Dr. B. R. Shurly, Section on Laryngology, Otology and Rhinology, seconded by Dr. C. F. Moll, Michigan, the third section of the report, pertaining to the resolution on investigation of advertising of hospitals, was adopted.

On motion of Dr. L. L. Sheddan, Tennessee, seconded by Dr. David Ross, Indiana, the fourth section of the report, pertaining to the expenses of secretaries of sections, was adopted, after discussion by Dr. A. E. Bulson, Indiana, Dr. E. B. Heckel, Chairman of the Board of Trustees, Dr. B. R. Shurly, Section on Laryngology, Otology and Rhinology, Dr. J. S. McLester, Section on Practice of Medicine, and Dr. E. C. Thrash, Georgia.

On motion of Dr. A. T. McCormack, Kentucky, seconded by Dr. Charles MacLachlan, North Dakota, the fifth section of the report, pertaining to modification of the By-Laws, was adopted.

On motion of Dr. J. W. Van Derslice, Illinois, seconded by Dr. W. A. Cook, Oklahoma, the sixth section of the report, pertaining to the Handbook of Physical Therapy, was adopted.

On motion of Dr. S. P. Mengel, Pennsylvania, seconded by Dr. J. N. Hunsberger, Pennsylvania, the seventh section of the report, pertaining to the physicians' home, was adopted, after discussion by Dr. J. R. Kevin, New York, Dr. J. N. Henry, Pennsylvania, Dr. C. M. Rosser, Texas, and Dr. A. E. Bulson, Indiana.

Dr. A. T. McCormack, Kentucky, moved that the report of the Board of Trustees be adopted as a whole. The motion was seconded by Dr. A. J. Bedell, New York, and carried.

Communication from American Bar Association

The Secretary read the following telegram:

The American Bar Association sends greetings to the American Medical Association on the occasion of its annual meeting, and gratefully acknowledges the message of good will from the American Medical Association brought on its behalf by Dr. Pusey to the Fiftieth Anniversary Meeting of the American Bar Association.

The Speaker stated that the message would be made a portion of the minutes of the session.

Report of the Reference Committee on Sections and Section Work

Dr. T. B. Throckmorton, Chairman, read the following report:

To the Members of the House of Delegates of the American Medical Association:

The Committee on Sections and Section Work has carefully reviewed the work of the Council on Scientific Assembly and is pleased to state that such matters as have received attention at the hands of the members of the Council have been most scrupulously cared for in every detail.

As has been the custom for many years, the assignments of the various sections as regards meeting hours into morning and afternoon sessions has been continued, those which met during the morning at the previous annual session being assigned the afternoon hours at this, the eightieth annual session, and those sections which met during the afternoon hours likewise being assigned to the morning hours this year. Your committee approves the assignment of the section work this year and heartily endorses the custom of the Council in alternating the time of the various scientific sections as regards their hours of meeting.

Too much credit cannot be given the Council on Scientific Assembly for its efforts in establishing diagnostic clinics and clinical lectures. The immense value of such a plan was most ably demonstrated at the annual session of the Association held in Minneapolis last year. Most enthusiastic audiences were in attendance at that time in which, ofttimes, as many as twenty-five hundred persons were present. This year a most attractive program has been prepared and the subjects chosen, either for clinical demonstration or for didactic purposes, cover a wide field which should prove of particular value to the great rank and file of medical men and women. Your committee not only wishes to approve this phase of the work of the Council, which has entailed much thought and labor in the carrying out of these plans to a successful fruition, but also feels that those who presented either the diagnostic clinics or the clinical lectures should be the recipients of this body's gratitude and thanks. While distance from the more dense centers of population may reduce the attendance at this session and hence curtail the number who may attend these clinics and lectures, still it is just as important that such a valuable means of education be continued for the benefit of any who may attend and for this reason your committee approves the program as presented this year and recommends that the Council on Scientific Assembly continue its efforts along this line in the future.

The Council reported that a special committee had been appointed, with the approval of the Board of Trustees, to study accidents occurring in connection with the use and handling of general anesthetics with special reference to explosives. This was done in the hope that information concerning the causes and prevention of such accidents might be secured and made available to the profession. Your committee fully endorses the Council in its selection of the committee men so chosen for this special task and believes much good will be derived from its work concerning this very important subject.

Attention was also called by the Council to the efficient work of the officers and secretaries of the various sections in providing for such a splendid scientific program as is offered this year. Unfortunately, the death of Dr. Bryce W. Fontaine of Memphis, during March, removed him from the secretaryship of the Section on Practice of Medicine; otherwise, the work of program construction was uninterrupted. Your committee is in full accord with the Council in its praise for the work done by the section officers, and joins with it in its expression of sympathy over the loss of so valuable a secretary and medical man as was Dr. Fontaine.

Respectfully submitted.

TOM B. THROCKMORTON, Chairman.
ISAAC A. ABT.
DAVID ROSS.
GEORGE P. JOHNSTON.
WELLS TEACHNOR, SR.

On motion of Dr. T. B. Throckmorton, Section on Nervous and Mental Diseases, seconded by Dr. N. B. Van Etten, New York, the report was adopted.

Report of Reference Committee on Legislation and Public Relations

Dr. C. E. Mongan, Chairman, read the following report:

Your committee has considered the excellent report of the Judicial Council. The entire report shows evidence of careful and thoughtful study of the subject presented to it for consideration.

We would call particular attention to that portion dealing with the vexatious topic of division of fees. We heartily approve of the recommendation relating to a change in the wording of Section 3, Article VI, Chapter II, of the Principles of Medical Ethics as published in the Report of the Judicial Council:

COMMISSIONS

SEC. 3.—When a patient is referred by one physician to another for consultation or for treatment, whether the physician in charge accompanies the patient or not, it is unethical to give or to receive a commission by whatever term it may be called or under any guise or pretext whatsoever.

Your committee has considered the resolution introduced by Dr. J. C. Litzenberg of Minnesota concerning a change in policy of the American Red Cross, whereby Red Cross nurses are now permitted to nurse patients under the care of osteopaths and chiropractors.

It appears that originally the American Red Cross made the statement, "The nursing of patients shall be carried on only under a licensed physician," and that at a more recent date the statement was made, "Where state laws license osteopaths and chiropractors, the Red Cross nurses may serve patients under the care of such." The explanation of this radical change of policy was given as follows:

Where nurses are employed through local funds raised either through taxation or voluntary subscription, and where these practitioners are licensed by law, the nurses have a moral as well as a legal obligation. They cannot in good grace refuse to assist such patients who require their services.

Your committee fails to see the logic of this assertion and we question the moral as well as the legal obligation of the American Red Cross to recognize other than regular medical practitioners.

We, therefore, recommend that the American Medical Association disapprove this change in policy of the American Red Cross, and we further recommend that the secretary of the American Medical Association communicate with the proper official of the American Red Cross stating our attitude on this question.

Concerning the resolution introduced by Dr. G. Henry Mundt of Illinois relative to charges for listings in the Classified Telephone Directory, this refers to the Red Book published in a few of our larger cities. It appears that a charge is made for listing of all telephone numbers of persons not original subscribers to telephone service. This particularly applies to medical men in associated groups with two or more members using the same telephone number, one of whom is a nominal subscriber.

We approve the resolution offered, namely, "That as long as the publishers of the classified telephone directory will list the names of all ethical physicians free of charge, such use of their names be permitted; but should a charge be made for such listings the House of Delegates will recommend to the various local societies composing the American Medical Association that the listing of their members' names in the Classified Telephone Directory (the Red Book) be discontinued.

Respectfully submitted.

C. E. MONGAN, Chairman.
ARTHUR W. BOOTH.
W. F. BRAASCH.
VICTOR G. VECKI.
W. ALBERT COOK.

On motion of Dr. C. E. Mongan, Massachusetts, seconded by Dr. A. W. Booth, New York, that portion of the report covering the report of the Judicial Council was adopted.

On motion of Dr. C. E. Mongan, Massachusetts, seconded by Dr. C. S. Gorsline, Michigan, that portion of the report pertaining to the resolution submitted by Dr. Litzenberg concerning a change in policy of the American Red Cross, was adopted.

On motion of Dr. G. H. Mundt, Illinois, seconded by Dr. Arthur A. Herold, Louisiana, that portion of the report pertaining to the resolution introduced by Dr. Mundt relative to charge for listing in the telephone directories was adopted.

Dr. C. E. Mongan, Massachusetts, moved that the report be adopted as a whole. The motion was seconded by Dr. A. J. Bedell, New York, and carried.

Report of Reference Committee on Hygiene and Public Health

Dr. G. C. Madill, Chairman, read the following report:

Your committee is heartily in favor of the following recommendation introduced by Dr. Van Derslice of Illinois, and moves its adoption:

WHEREAS, Numerous publications and reports indicate the increasing menace to health and to life from carbon monoxide gas as a constituent of illuminating gas and as a by-product of the combustion of gasoline in automobiles,

WHEREAS, Reports appear indicating the danger to health and to life of gases such as methyl chloride, ethyl chloride, sulphur dioxide and other gases used in electric refrigeration,

WHEREAS, The advancements of chemical and physical sciences introduce into industry and life other preparations which may be dangerous to health, therefore be it

Resolved, That the Board of Trustees of the American Medical Association constitute a committee to prepare a report as to the extent of these menaces and the necessary steps to be taken to protect the public in connection therewith, and that arrangements be made for wide publication of these facts so that the public may be informed fully regarding such dangers.

Your committee believes that the American Medical Association can well adopt the following resolution, introduced by Dr. Soiland of California, carrying with it a distinct recognition of the excellent medical work carried out in this department:

WHEREAS, The Aeronautics Branch, Department of Commerce, has organized a medical service for the physical examinations of civil pilots and prospective pilots, in the interest of safety; and

WHEREAS, The physical standards adopted are in keeping with those adopted universally, and have reduced aircraft accidents from physical causes to a minimum; and

WHEREAS, The department has required these examinations to be made only by designated physicians in the interest of uniformity and control and in accordance with the custom adopted for the Army and Navy and in other countries; and

WHEREAS, The selection of examining physicians by the department has been based on training as flight surgeons or its equivalent, or on group examinations by specialists, a high standard of examination has resulted; and

WHEREAS, The department requires that all examiners hold the degree of Doctor of Medicine, be licensed to practice medicine under the laws of their respective states, and further requires that the appointees be recognized as ethical practitioners in their respective localities, thereby supporting the high standards advocated by this association; be it

Resolved, That the American Medical Association at its stated assembly in 1929 endorses the medical work of the Department of Commerce, its methods of physical examination and its method of selection of medical examiners, and urges that the same high standards be continued and offers the support of the American Medical Association in furthering the specialty of aviation medicine; and be it further

Resolved, That a copy of this resolution be sent to the President of the United States, the Secretary of Commerce, and the Secretary of each state medical society.

Dr. Madill moved that the portion of the report pertaining to the resolution submitted by Dr. Van Derslice relative to carbon monoxide gas menace be adopted. The motion was seconded by Dr. David Ross, Indiana, and carried.

Dr. Madill moved that the portion of the report pertaining to the resolution submitted by Dr. Soiland relative to endorsing the medical work of the Department of Commerce be adopted. The motion was seconded by Dr. A. J. Bedell, New York, and carried.

Dr. Madill stated that the other report given to this committee was the one by Dr. Litzenberg of Minnesota, and apparently that was also given to the Reference Committee on Legislation and Public Relations. That had already been acted upon, and it would seem unnecessary for him to present it.

Dr. Madill moved the adoption of the report as a whole. The motion was seconded by Dr. A. J. Bedell, New York, and carried.

Report of Reference Committee on Amendments to the Constitution and By-Laws

Dr. E. C. Thrash, chairman, read the following report:

Resolved, That in Chapter XIX on Amendments to By-Laws, the word "three fourths" be changed to "two thirds."

The sentence containing this word now reads:

"These By-Laws may be amended by a vote of three fourths of the House of Delegates."

After amendments it will read:

"These By-Laws may be amended by a vote of two thirds of the House of Delegates."

We recommend the adoption of this amendment.

We approve the change in the By-Laws in accord with the resolution introduced by our Secretary changing the name of the administrative head of the Bureau of Legal Medicine and Legislation from that of "Executive Secretary" to "Director."

Dr. Thrash moved that the portion of the report relating to modification of Chapter XIX of the By-Laws be adopted. The motion was seconded by Dr. C. F. Moll, Michigan, and carried.

Dr. A. T. McCormack, Kentucky, moved that the amendment to the By-Laws be adopted. The motion was seconded by Dr. C. M. Rosser, Texas, and carried.

Dr. Thrash moved that the portion of the report relative to changing the name of the administrative head of the Bureau of Legal Medicine and Legislation, as submitted in a resolution by the Secretary, be adopted. The motion was seconded by Dr. C. F. Moll, Michigan, and carried.

Dr. P. T. Magan, California, moved that the amendment be adopted. The motion was seconded by Dr. O. M. Gilbert, Colorado, and carried.

Dr. E. C. Thrash, Georgia, moved the adoption of the report as a whole. The motion was seconded by Dr. Mather Pfeiffenberger, Illinois, and carried.

Dr. Arthur A. Herold, Louisiana, moved that the House go on record as protesting against any further restrictions on the legitimate practice of medicine by legally authorized physicians. The resolution was referred to the Board of Trustees.

The House of Delegates recessed at 11:25 a. m., to reconvene at 3 p. m. Tuesday afternoon.

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Tuesday Afternoon, July 9

The meeting was called to order at 3:10 p. m., by the Speaker, Dr. F. C. Warnshuis.

Dr. A. E. Bulson, Indiana, moved that the House thank the people of Portland, and particularly the members of the medical profession, for their hospitality. The motion was seconded by Dr. A. W. Hornbogen, Michigan, and carried.

Dr. A. E. Bulson, Indiana, presented an article from the Portland *News* regarding an interview by Dr. Clarence True Wilson of Washington, D. C., with respect to the address delivered by Dr. Thayer, before the House of Delegates on Monday.

After discussion by Dr. Thayer, Dr. A. E. Bulson, Indiana, Dr. T. C. Chalmers, New York, Dr. E. C. Thrash, Georgia, and Dr. Holman Taylor, Texas, Dr. W. H. Mayer, Pennsylvania, moved that, as an expression of confidence in our worthy President, the House heed his advice, cease this discussion, and proceed with the business. The motion was seconded by Dr. Arthur A. Herold, Louisiana, and carried.

Report of the Reference Committee on Reports of Officers

Dr. A. E. Bulson, chairman, presented the following report:

Your committee respectfully submits the following report and recommendations concerning the addresses of the officers delivered at yesterday morning's meeting:

The committee endorses the sentiments expressed by the Speaker concerning departed members, and the tributes paid. It also endorses the opinion expressed concerning the danger of a precedent established concerning the seating of delegates that are not accredited according to the rules and regulations of the Constitution and By-Laws. In connection with this matter, the committee recommends that there should be an amendment to the By-Laws which will make it possible for the representation of any state in this House of Delegates by appointment by the president and secretary of any state medical association of a representative to represent that state in the case of the absence of delegates or alternates duly elected to represent such state. It is suggested that the amendment can be sufficiently explicit concerning the manner in which such appointment or appointments may be made. Your committee further desires to commend the Speaker for the excellent, impartial and courteous manner in which he has conducted the duties of his office.

Concerning the address of President Thayer, the committee desires to express its entire approval of the sentiments and opinions expressed. It recognizes the truth of the assertion that there are too many medical societies requiring too much time of busy practitioners to try to keep up active membership in such organizations, and suggests that the problem may be settled through a union of various societies and a greater effort to make the programs of such amalgamated societies more interesting and profitable. This is especially true as pertaining to the meetings of hospital staffs and county medical societies, which could be made more profitable and with a larger attendance if programs were combined under the auspices of the component county medical society. A discussion of postmortem reports or findings, which form the basis of so many programs of many staff meetings of hospitals, if utilized at the meetings of county medical societies alone would add to the value and interest of county society meetings.

The committee especially approves the idea of having hospitals classified and approved, but is of the opinion that such classification and approval will prove more satisfactory to all concerned if it is made by representatives of the American Medical Association under the authority and approval of the Association and not by any organization or individuals supposedly representing the elect but not officially representing the American Medical Association.

The committee approves and endorses the suggestions concerning the publication of the *Quarterly Cumulative Index Medicus*, and recommends that the Trustees of the Association continue its support of this enterprise.

The committee especially commends and endorses the sentiments expressed by President Thayer concerning legislative enactments that are inimical to the best interests of the medical profession and public, by restricting medical men as to what shall and what shall not be prescribed for the relief of human ills. It does, however, recognize the wisdom of the advice of President Thayer to the effect that these questions should be considered by this House of Delegates in a spirit of temperance and good judgment, and with proper respect for our traditions.

Concerning the address of President-Elect Harris, your committee desires to reiterate what has been said concerning the agitation on the subject of the high cost of medical care, but it especially desires to call attention to a fact often overlooked, that the increasing cost of sickness cannot be justly charged to the medical profession inasmuch as in a general way compensation for medical and surgical services has not increased in proportion to the increased cost of sickness occasioned by other contributing factors, nor has the compensation of physicians and surgeons increased to anything like the increase that has occurred in the cost of everything else. The committee recognizes that the cost of sickness may not be evenly distributed, and may depend on conditions over which the physician has no control. Competent and adequate service should be available to all, but the plan of distribution will require a continuation of constructive thought, and especially in view of the fact that a plan that may prove adequate and satisfactory for one community may not do for another, and any proposed plan may have to be modified to suit certain conditions or certain communities.

Your committee does believe that this whole subject should receive the serious consideration of the medical profession, and that the problems confronting us in connection therewith must be solved by the medical profession and not by lay individuals or lay organizations.

Respectfully submitted.

A. E. BULSON, Chairman.
J. N. HUNSBERGER.
C. J. WHALEN.
J. W. PRESTON.
J. W. BURNS.

On motion of Dr. Bulson, seconded by Dr. E. P. Sloan, Illinois, the report was adopted, after discussion by the Secretary and Dr. Bulson.

Report of Reference Committee on Medical Education

Dr. J. C. Litzenberg, Minnesota, read the following report:

Your Reference Committee on Medical Education begs leave to submit the following report:

MEDICAL EDUCATION

The Council on Medical Education and Hospitals gives the gratifying report that seventy-two of the seventy-four medical schools in the United States are rated as class A. Two only, which still offer prospects of making improvements sufficient to place them eventually in class A, are left in class B, and the six schools which have always been rated low in class C are now declared by the Council to be "unworthy of even being recognized as medical schools."

This is fine testimony of the great work of the Council during the last two decades in raising the standards of medical education. It has been a long, hard road but the results give us much hope that the Council's colossal undertaking of doing the same thing for the hospitals of the country may also eventually be crowned by success. It is gratifying to note also in the report that the continuing enlargement of medical school plants and teaching hospitals is not only adding to the efficiency of medical education but seems gradually to be solving the question of student enrolment, so that even with the exclusion of six unrecognized colleges the enrolment of students still shows an increase over last year; and few really qualified applicants are now rejected. Now nearly all students failing to secure enrolment are deficient in preparation, either quantitatively or qualitatively.

Your committee is particularly glad to note in the report that saving time and expense for the student in his medical education is being met in five, and contemplated by other, medical schools by adopting the quarter system, whereby the summer is utilized to gain a quarter of college work each year. Your committee recommends that the House commend this plan to the consideration of all medical schools.

HOSPITALS

The register of hospitals now lists 6,852 institutions, of which number only 624 are considered of sufficient educational development to provide satisfactory intern training for recent graduates in medicine.

The Council reports that 103 hospitals were added to the hospital register during the past year, but fifty-three others were dropped "as unworthy of such recognition." We agree with the reference committee of last year that "in taking up the work of appraisal of hospitals and laboratories the functions of the Council are being enormously extended," and that there are "recognized objections to attempts at widespread appraisal by a national organization."

However, other agencies do not seem to possess the will, the machinery or the funds for such an enormous undertaking, so the Council has bravely attacked the forbidding task and late in 1928 "an inspection of hospitals was begun by inspectors sent out from the Council's headquarters and will be made state by state." The declared policy of the Council is "not only to learn at first hand about the equipment, facilities and efficiency of the routine, but also to inform frankly the officers and staff of the hospital of any changes which are deemed essential in the hope that the institution can be retained on, or be restored to, the register of hospitals approved for intern training."

Your committee agrees with the Council that "with the large number of hospitals now seeking interns the requirement of certain qualifications is fully justified."

The 624 approved hospitals provide 5,409 internships, more than enough for all graduates. Your committee believes that, unless the investigations of the inspectors include the quality and quantity of the clinical teaching by the staff, appraisal of the value of an internship in any hospital will be inadequate.

Many large, adequately equipped, well managed hospitals with excellent staffs offer very poor internships because the staff members cannot, or will not, give the interns sufficient clinical teaching. Your committee submits that, unless the inspectors include conferences with the interns as well as the officers and staff, the evaluation of the hospital as a place for internships will be incomplete.

Your committee notes with satisfaction that the Council has attacked the very serious problem of multiplicity of medical meetings by ordering "a special investigation concerning conflicts between hospital conferences and county society meetings." Staff meetings too seldom are limited to "the hospitals' highly important problems" and too frequently have so-called scientific programs which would be better left to the county society.

Pursuant to instructions from the House of Delegates regarding laboratories of radiology, the Council has prepared a schedule of essentials of an approved radiologic laboratory.

Your committee recommends the adoption of the "Essentials of an Approved Department of Radiology" as printed in the Report of the Council on Medical Education and Hospitals.

Dr. James R. Bloss, West Virginia, presented the following resolution:

WHEREAS, There has been no reduction in the maternal mortality rate in this country from childbirth since 1915, and

WHEREAS, These deaths are largely due to such preventable conditions as puerperal infection, toxemia and hemorrhage, conditions which the properly trained graduate should be able to prevent or manage, and

WHEREAS, In the last analysis it is the general practitioner who does and will attend the great mass of lying-in women, and

WHEREAS, The time allotted for the teaching of obstetrics in the curriculums of the several medical schools has been cut down and is inadequate to drill the student thoroughly in this important major, be it

Resolved, That the House of Delegates request the Council on Medical Education and Hospitals to investigate the present teaching of obstetrics in this country, and so readjust the curriculum that the hours allotted for the teaching of obstetrics be equal to those allotted to the teaching of surgery.

Your reference committee is in substantial accord with the spirit of this resolution presented by Dr. Bloss of West Virginia, but it seems to us unwise to recommend an investigation and at the same time to state in the resolution what the findings shall be; therefore, we recommend that the last phrase of the resolution which reads "and so readjust the curriculum that the hours alloted for the teaching of obstetrics be equal to those allotted to the teaching of surgery" be stricken out and the following phrase substituted: "and make such recommendations for increasing the clinical teaching hours of obstetrics as the results of its investigations may warrant."

Your committee was impressed by the number of delegates from various parts of the country who appeared in support of this resolution, all of whom expressed the belief that inadequate obstetric teaching was one of the chief reasons for the deplorably high maternal mortality.

We recommend the adoption of the resolution as amended.

The following resolution was presented by Dr. T. O. Freeman, Ilinois:

WHEREAS, Many hundreds of small hospitals throughout the country are greatly handicapped through their inability to determine the proper standards for their conduct, and

WHEREAS, Many hospitals believe that at this time there are several organizations endeavoring to aid in hospital standardization, and not entirely along the same lines, and

WHEREAS, Those in charge of these institutions are desirous at all times of giving the best service possible to those whom they serve and give the best training possible to their pupil nurses, and

WHEREAS, It is the general opinion of staff members and those in authority in our smaller hospitals that the American Medical Association, whose membership and fellowship are composed of physicians in all branches of medical and surgical work, is naturally the proper organization to standardize our hospitals, therefore be it

Resolved, That the Council on Medical Education and Hospitals of the American Medical Association be urged by this House of Delegates to make a survey of the needs of our smaller hospitals, render all possible assistance to all such institutions desirous of improving their system of records, and improving their usefulness to those whom they serve, and be it further

Resolved, That the Council on Medical Education and Hospitals offer their assistance and assurance of cooperation to the various state registration departments so that they will know the proper place to procure such assistance as they may desire in their endeavor to classify accredited hospitals.

It is the opinion of your committee that the investigation begun several years ago and still being carried on by the Council on Medical Education and Hospitals will fulfil all of the objects of this resolution, and we feel sure that the Council on Medical Education and Hospitals stands ready to give every assistance possible and to cooperate with the small hospitals in solving their problems. Therefore, we do not recommend the adoption of the resolution.

RESOLUTIONS

The following resolution, introduced by Dr. Burt R. Shurly, Detroit, and submitted to the House of Delegates in the Report of the Secretary, has been referred to this committee:

1. WHEREAS, The medical profession has provided definite rules and regulations for members of the American Medical Association in regard to advertising and publicity, and

2. WHEREAS, Some hospitals, municipal and otherwise, have advertised special and wonderful cases in the daily press and have given to the public stories of their special excellence and efficiency as compared with other hospitals in the neighborhood, therefore be it

Resolved, That these advertisements be specially collected, and presented to the Council on Medical Education and Hospitals, and that this question of hospital advertising be given due consideration and reported to the House of Delegates at the next annual meeting and the rating of hospitals be affected according to the unethical advertising published.

Your committee proposes the following substitute for the final paragraph of Dr. Shurly's resolution:

Resolved, That any physician observing such advertisements be requested to send them to the Council on Medical Education and Hospitals for its information and use in the rating of hospitals.

We recommend the adoption of this resolution as amended.

Respectfully submitted.

J. C. LITZENBERG, Chairman.
J. F. SMITH.
E. P. SLOAN.
S. P. MENGEL.
J. N. VANDER VEER.

Dr. Litzenberg moved that the report be adopted. The motion was seconded by Dr. J. N. Vander Veer, New York.

Dr. G. H. Mundt, Illinois, moved as an amendment to the motion that the resolution be referred back to the committee to be reported on at the next meeting of the House of Delegates. The motion was seconded by Dr. C. E. Mongan, Massachusetts, and carried, and that resolution was referred back to the committee.

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Report of the Reference Committee on Reports of Board of Trustees and Secretary

Dr. W. F. Donaldson, Chairman, read the following report:

We note with satisfaction, in the opening paragraphs of the report of Secretary West, the continued, consistent increase in the number of members and of Fellows, averaging 2,000 a year each during the past ten years. Since the Association has reached this splendid enrolment of nearly 100,000 members, we support the opinion of Secretary West to the effect that the time is at hand for the members of this Association to devote more effort and funds to compactness and efficiency of organization. We urge the individual members and officers of this House to assist in the development and fulfilment of plans whereby component county society activities, councilor district meetings, and scientific sectional programs within the constituent state associations may attract and render more cohesive our nearly 100,000 members, thereby diverting them from the excessive number of medical organizations now in existence and concentrating their attention and contributions where they will be most effective, with the least possible amount of lost motion due to duplication of effort. The best influences of the organized members of the medical profession on public health and welfare are undoubtedly, at the present time, vitiated or wasted by the multiplicity of medical organizations.

We bespeak for Secretary West continued and increasing cooperation and encouragement in his endeavors to have the American Medical Association take a large part in improving the quality of the service rendered by physicians to the people of the United States.

It is encouraging and we believe unmistakable evidence of approbation to note, as we note in this year's report, an increase of more than 2,500 subscribers to THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION. Such consistent growth in numbers of the readers of a scientific journal issued weekly, now closely approximating 100,000, speaks for approval of the purposes of its publishers and confidence in its policies. We desire to compliment the editorial and publication staff of THE JOURNAL on the intellectual, informatory and physical qualifications of THE JOURNAL. We believe that if it were issued but twelve times a year instead of fifty-two times, it would still be well worth the present annual fee of five dollars.

We also commend the editor for his energy and ability displayed in field work, believing that his appearance before medical and lay audiences has resulted in increased public knowledge of the high aims of the Association.

We believe that the biennial issue of the American Medical Directory has been a contribution, and are pleased to note that the tenth edition was issued practically without financial loss to the Association.

We commend to the officers of all county and state associations the necessity for continuous endeavor to apprise their members of the difference between membership and Fellowship in the American Medical Association.

It is astonishing to observe, from the table printed on page 37 of the handbook, that there are nearly 12,000 subscribers to THE JOURNAL, in the states having the three largest constituent associations, who are not Fellows of the Association. It is reasonable to assume that a very large percentage of this total are members of the Association who would gladly, if approached, apply for Fellowship.

We note the discontinuance of the Spanish edition of THE JOURNAL and are gratified to learn of the many subscribers and readers of THE JOURNAL who are retained in Spanish-speaking countries.

We wish that the various reported increases in the number of subscribers to the seven special journals issued by the Association might have been greater and more nearly worthy of the high quality of scientific journalism therein represented. Attention is especially called to the newest of the archives published, that of ophthalmology.

It is especially gratifying to note that *Hygeia* continues to be a more than self-sustaining publication. We are at a loss, however, to understand why less than one sixth of the members of the American Medical Association are subscribers to this popular publication. We believe that those who do subscribe will not only testify to the scientific saneness of its contents but also agree that it outshines in popularity most magazines read by those who find it necessary to wait in physicians' reception rooms.

It is indeed a pleasure to review that portion of the Trustees' report referring to the *Quarterly Cumulative Index Medicus*. The publication of this index by our Association has been a true contribution to the advancement of medical sciences. It is gratifying to learn of the world-wide recognition by scientific groups of the great value of this publication. We are confident that every Fellow of the American Medical Association is grateful to the responsible representatives.

The close relationship between the *Index Medicus* and the library of the Association is emphasized in the report of the Board of Trustees. We recommend the package library service of the Association to the association members, wherever they may be located, and we feel confident that it is the desire of the members of this House that the Board of Trustees should continue unstinted appropriations necessary to the growth of all such forms of service.

We approve of the purposes and the results attained by the Cooperative Medical Advertising Bureau, and we note that all but two of the constituent state associations who publish official journals cooperate with the bureau. We commend to the members of this House, representing the two associations referred to, careful consideration of the situation.

We note the report of close cooperation between the Association and several radio broadcasting stations. We respectfully suggest that the 1930 report on this phase of public instruction include, for the benefit of societies contemplating similar endeavors, the tangible evidences accumulated by the bureau indicative of the true value of the broadcasting service. We commend the field and exhibit work of the bureau, its director and assistant director, and encourage further development of the distribution of educational pamphlets and posters. We recognize and commend the efforts on the part of this bureau to enter into the solving of health educational problems confronting other organizations. It is always a source of pride to have our organization thus recognized by others seeking by improved methods to secure improved health conditions for our people.

When we review the report on the work of the Council on Pharmacy and Chemistry, we are at once struck with the tangible evidence of knowledge transformed into service. Here is a Council twenty-four years in active work that has consistently striven only to improve the therapeutic equipment of those who seek to prevent or treat sickness. This Council by its endeavors has simplified for all physicians the therapeutic application of only approved and useful remedies from among the flood of new preparations offered to the profession and the public. To the end that all therapeutic products may measure up to the enlightened standards advocated by the Council, we commend to the members of this House and their constituencies the adoption of the Council's advice at set forth in THE JOURNAL and its own publications, including the 1929 edition of New and Nonofficial Remedies.

Furthermore, we recommend that the House recognize and express its appreciation of the advice and assistance rendered the Council without remuneration by the gentlemen whose names are mentioned on pages 53 and 54 of the handbook.

The fact that his own Association is contributing money in the form of individual grants to investigators in the field of therapeutic research should be a source of pride to every member of the American Medical Association, and we approve the liberal policy of our Board of Trustees toward the Research Committee.

We greatly admire the work of the Chemical Laboratory in cooperation with the Council on Pharmacy and Chemistry.

We note and approve the plan now in operation between the chemists of the American Dental Association in our own laboratory and with our own laboratory workers.

The work of the Council on Physical Therapy, while not as long established as that of other councils, is noted and appreciated. To have the invaluable assistance of the men on this council mentioned on page 61 of the handbook in charting for the benefit of our members their application in practice of new physical therapy appliances is noted with gratitude.

The growing activities of the Bureau of Investigation are graphically set forth in the table published on page 66. We

will mention only in passing the great service being rendered almost directly to the public by this bureau in its investigation and publication of the fraudulent activities of nostrum exploiters, quacks and charlatans.

The results achieved in influencing federal legislation in the last two years by the Bureau of Legal Medicine and Legislation which directly and favorably affect our membership demonstrates the long, hard service of the director in our behalf.

Members of this House who have noted the remarkable growth since 1923 of the annual scientific exhibit of the Association will undoubtedly wish to express their appreciation of the educational value of this feature of each annual session. The development of scientific exhibits with personal demonstrators in attendance under the auspices of the various scientific sections is especially to be commended.

The report of the committee appointed by the Board of Trustees in 1927 on the advisability of the establishment of a central scientific exhibit to be permanently installed in the headquarters building of the Association is worthy of careful reading by every member of this House, and we note with pleasure the authorization by the Board of Trustees of the installation of such an exhibit. This exhibit should serve as a valuable and instructive added attraction to visiting members.

Your committee, as a result of its careful review of the 1929 report of our Board of Trustees, is impressed with the extent of the business originating in and referred to this board. We recommend to this House an expression of appreciation of the great amount of time and energy expended at great sacrifice by the members of the Board of Trustees in thus serving so efficiently our membership.

Respectfully submitted.

WALTER F. DONALDSON, Chairman.
J. R. KEVIN.
B. R. MCCLELLAN.
L. L. SHEDDAN.
WILLIAM KUYKENDALL.

On motion of Dr. Donaldson, seconded by Dr. A. E. Bulson, Indiana, the first portion of the report was adopted.

On motion of Dr. Donaldson, seconded by Dr. A. J. Bedell, New York, the report as a whole was adopted.

Report of the Reference Committee on Monumental Building

Dr. William Allen Pusey, Chairman, read the following report:

Your reference committee on the proposed new building recognizes that it is necessary that the Association's building shall be adequate for the efficient and economical conduct of its business and that the trustees should look ahead and provide in advance for the growing needs in housing of the Association.

Your committee also recognizes that it is desirable for the Association to have as its headquarters a building that would be visible evidence of the dignity, importance and power of the Association. It feels, however, that, in carrying out any project to express the Association's standing, conservative business requires that any building plan should be assured of a financial structure that would be sound and that would not load the Association with financial obligations which would be burdensome to the extent of hampering it for money in carrying on and enlarging its many enterprises both practical and altruistic, or that would lower the power the Association now has in being a prosperous and financially vigorous institution.

These considerations are undoubtedly in the mind of the Board of Trustees. Indeed, your committee feels that this proposal for a new building is one which, as a business enterprise, may well be left to the discretion and responsibility of the Board of Trustees, the House limiting itself to an expression of its recognition of the necessity for providing adequate housing for the Association's business, and of the desirability of a dignified building when, and if, the Board of Trustees decides that it is opportune to build it.

Your committee feels that ways and means are also the responsibility of the Board, but that this House may well express the opinion that the subscription price of THE JOURNAL is now relatively greatly below that of other journals that approximate it in extent and quality, and that this being the case the Board may, with good judgment, consider the question of increasing the subscription price of THE JOURNAL.

The committee further feels that it might be appropriate for the Board of Trustees in a building program to solicit memorial contributions both large and small from members of the Association in return for which some token of gratitude would be provided. It expresses the opinion that as the Association shows the increased evidence of strength and permanence that would come from a home of its standing, it would gradually become the recipient of an increasing number of memorial contributions of considerable amount.

WILLIAM ALLEN PUSEY, Chairman.
ALBERT E. BULSON.
J. FORREST BURNHAM.
ALBERT SOILAND.
N. B. VAN ETTEN.
HOLMAN TAYLOR.

On motion of Dr. Pusey, seconded by Dr. David Ross, Indiana, the first portion of the report, in which the committee practically recommended that the question of a new building be left to the good judgment of the Board of Trustees, was adopted, after discussion by Dr. T. C. Chalmers, New York, and Dr. William Allen Pusey, Illinois.

On motion of Dr. Pusey, seconded by Dr. S. L. Baysinger, Missouri, that portion of the report relating to the ways and means of financing the building was adopted, after discussion by Dr. William Allen Pusey, Illinois, Dr. T. C. Chalmers, New York, and Dr. E. B. Heckel, Board of Trustees.

On motion of Dr. Pusey, seconded by Dr. A. E. Bulson, Indiana, that portion of the report relating to solicitation of memorial contributions was adopted.

Dr. Pusey moved the adoption of the report as a whole. The motion was seconded by Dr. T. C. Chalmers, New York, and carried.

Report of the Reference Committee on Miscellaneous Business

Dr. T. O. Freeman, Chairman, read the following report:

An invitation has been received from the president and director of the Pan-Pacific Union under whose auspices the Pan-Pacific Surgical Conference is to be held in Honolulu, August 14 to 24.

Your committee would recommend that our Secretary be instructed to thank the Pan-American Union for their courtesy in extending this invitation and would further suggest that publicity be given to their invitation, so that those who desire may attend.

T. O. FREEMAN, Chairman.
E. J. GOODWIN.
M. L. STEVENS.
W. BLAIR STEWART.

On motion of Dr. Freeman, seconded by Dr. J. N. Hunsberger, Pennsylvania, the report was adopted.

Resolutions

Dr. William Allen Pusey, Illinois, moved that in chapter XVII, Annual Fellowship Dues, under the heading Miscellaneous By-Laws, the phrase "shall not exceed $6" be made to read "shall not exceed $8."

Dr. E. J. Goodwin, Missouri, presented the following resolution, which was referred to the Reference Committee on Medical Education:

At the annual meeting of the Missouri State Medical Association at Springfield last May the retiring president, Dr. Frank I. Ridge of Kansas City, in his message to the house of delegates recommended that medical schools be encouraged to arrange for periods of practical experience for students between the second and third years and between the third and fourth years. This practical experience, he suggests, can be provided by apprenticing the students during the summer vacation to practitioners of high standing, preferably in rural communities. He endorsed the one year internship in a hospital and thought a second year would be beneficial. This second year, he proposed, could be obtained by the apprenticeship mentioned.

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By such an arrangement the medical students and newly graduated physicians will know something about contact with the people they must handle and learn how to treat disease by actual contact with the patients in their homes. At the same time the practitioner in the rural community will have his interest reawakened in laboratory methods and the latest developments in therapeutic measures.

This recommendation of President Ridge was approved by the House of Delegates of the Missouri State Medical Association, and our delegates to the American Medical Association were instructed to offer the proposition to this body for consideration. In accordance with this instruction the Missouri delegates offer the following resolution:

Resolved, That the House of Delegates instruct the Council on Medical Education and Hospitals to consider the plan proposed by the Missouri State Medical Association, and if, in their judgment, it is found feasible and beneficial, the Council is urged to encourage medical schools to inaugurate suitable methods for providing these vacation periods of practical experience for their students.

Dr. A. T. McCormack, Kentucky, presented the following resolution, which was referred to the Reference Committee on Hygiene and Public Health:

WHEREAS, Milk is one of the most important articles of food, the safety of which is of vital concern in the protection of the health of the people and especially that of children, therefore be it

Resolved, That it is the sense of the American Medical Association that the determination of measures necessary for insuring its safety for human consumption is a duty and function of the medical profession through the duly constituted public health officials of this country.

Dr. Herbert C. Mallory, United States Army, presented the following resolution, which was referred to the Board of Trustees:

Resolved, That the Board of Trustees of the American Medical Association be requested to appoint a special permanent committee to be known as the Committee on Military Affairs and National Defense, to which shall be referred all matters pertaining to national defense and military preparedness.

Dr. Holman Taylor, Texas, presented the following resolution, which was referred to the Committee on Legislation and Public Relations:

WHEREAS, The National Defense Act of 1920 provides for a small regular army, a somewhat larger national guard, composed of trained citizen soldiery, a reserve corps, composed of citizens in training for national defense, the reserve officers' training corps, composed of students taking military training, and a system of military training camps, designed to improve the physical status of the young men of our country and inculcate in them the basic training necessary for effective service in the defense of our country in the time of need, and

WHEREAS, The medical profession of our country were pioneers in preparedness, therefore be it

Resolved, That the American Medical Association, through its House of Delegates, in regular session assembled, go on record as heartily approving of the said National Defense Act of 1920, and be it further

Resolved, That copies of this resolution be furnished the Secretary of War, the chief of the staff of the army, the chief of operations of the navy and the surgeon generals of the army and navy.

Dr. Albert Soiland, California, presented the following resolution, which was referred to the Board of Trustees:

WHEREAS, There is a bill before the United States Senate Committee on import tariffs which imposes a heavy financial burden on the medical profession, and

WHEREAS, This bill includes in its contents prohibitory tariffs on surgical instruments, x-ray equipment, vacuum tubes, valve tubes and scientific glassware, and

WHEREAS, This tariff will add unnecessarily to the already high cost of medical care to humanity, be it

Resolved, That the House of Delegates of the American Medical Association in regular assembly is opposed to the passage of such a bill, and be it further

Resolved, That a copy of this resolution be placed in the hands of the United States Senate Committee for its earnest consideration.

Dr. H. C. Macatee, District of Columbia, presented the following resolution, which was referred to the Reference Committee on Hygiene and Public Health:

WHEREAS, The Traffic Committee of the Medical Society of the District of Columbia in a report on the standards of fitness to be required of automobile drivers has found that relatively few accidents occur because of defects of sight and hearing, but that many are due to defects of mental and moral responsibility, and

WHEREAS, Such defects in mental and moral responsibility may be determined by medical examination, as demonstrated by the examination of airplane pilots required by the Department of Commerce, therefore be it

Resolved, That the House of Delegates consider the advisability of amending the present standards of physical fitness of automotive operators, adopted by this Association, by the addition of standards of mental and moral fitness to be recommended for adoption by the several states as a condition for issuing licenses to operate motor vehicles, and that this resolution be referred to a special committee for consideration and report at the 1930 meeting.

Dr. Southgate Leigh, Virginia, presented the following telegram:

Suggest you introduce a resolution requesting the editors of Journal and Bulletin to explain why they have not published arguments in favor of Sheppard-Towner Act.

E. G. WILLIAMS, Health Commissioner
of the State of Virginia.

Dr. A. E. Bulson, Indiana, moved that it be laid on the table. The motion was seconded by Dr. T. C. Chalmers, New York. The telegram was laid on the table after discussion by Dr. Southgate Leigh, Virginia, and Dr. A. E. Bulson, Indiana.

Dr. Holman Taylor, Texas, moved that the Secretary be instructed to extend the felicitations of the House of Delegates to Mrs. Packard, who reported the meetings of the House for several years and who is now the mother of a little son. The motion was seconded by Dr. A. T. McCormack, Kentucky, and carried.

The Secretary presented a communication from George Eastman, national chairman for the Special Committee on Science of Engineering and Technology, which has to do with the matter of adopting a new calendar, which was referred to the Board of Trustees.

The House recessed at 4:35 p. m., to reconvene at 2 p. m. Thursday afternoon.

REGISTRATION AT PORTLAND

The total registration at the Portland Session was 3,061. Below are given two summaries—one by sections and one by states:

REGISTRATION BY SECTIONS

Practice of Medicine	895
Surgery, General and Abdominal	683
Obstetrics, Gynecology and Abdominal Surgery	216
Ophthalmology	166
Laryngology, Otology and Rhinology	199
Diseases of Children	123
Pharmacology and Therapeutics	26
Pathology and Physiology	87
Nervous and Mental Diseases	75
Dermatology and Syphilology	83
Preventive and Industrial Medicine and Public Health	70
Urology	122
Orthopedic Surgery	70
Gastro-Enterology and Proctology	41
Radiology	102
Miscellaneous	103
Total	3,061

REGISTRATION BY STATES

Alabama	5	New Hampshire	1
Arizona	14	New Jersey	12
Arkansas	7	New Mexico	3
California	492	New York	98
Colorado	60	North Carolina	10
Connecticut	6	North Dakota	22
District of Columbia	23	Ohio	76
Florida	5	Oklahoma	25
Georgia	17	Oregon	619
Idaho	46	Pennsylvania	61
Illinois	116	Rhode Island	1
Indiana	40	South Carolina	8
Iowa	45	South Dakota	16
Kansas	30	Tennessee	21
Kentucky	15	Texas	82
Louisiana	9	Utah	36
Maine	2	Vermont	2
Maryland	10	Virginia	8
Massachusetts	44	Washington	559
Michigan	56	West Virginia	7
Minnesota	122	Wisconsin	30
Mississippi	4	Wyoming	10
Missouri	55	Miscellaneous	53
Montana	40		
Nebraska	34	Total	3,061
Nevada	4		

Medical News

(PHYSICIANS WILL CONFER A FAVOR BY SENDING FOR THIS DEPARTMENT ITEMS OF NEWS OF MORE OR LESS GENERAL INTEREST; SUCH AS RELATE TO SOCIETY ACTIVITIES, NEW HOSPITALS, EDUCATION, PUBLIC HEALTH, . ETC.)

ALABAMA

Health at Birmingham.—Telegraphic reports to the U. S. Department of Commerce from sixty-one cities with a total population of about 29 million, for the week ending July 6, indicate that the highest mortality rate (17.9) was for Birmingham, and that the mortality rate for the group of cities as a whole was 10.2. The mortality rate for Birmingham for the corresponding weeks last year was 20 and for the group of cities, 11.7. The annual mortality rate for the sixty-one cities for the twenty-seven weeks of 1929 was 14.3, as compared with the rate of 13.8 for the corresponding weeks of last year. Caution should be used in the interpretation of weekly figures, as they fluctuate widely. The facts that some cities are hospital centers for large areas outside the city limits or that they have a large negro population may tend to increase the death rate.

CALIFORNIA

Was Hamlet Insane?—Shakespeare's Hamlet was presented in June in Los Angeles for the benefit of the Clara Barton Nurses' Home, the leading part being played by Dr. Cecil E. Reynolds, a neuropsychiatrist. He portrayed Hamlet as insane, or, as a critic said, "a mad man from the first time he saw his father's ghost to the end of the play." R. D. MacLean, a professional Shakespearian actor, who saw the play, commended the acting of Dr. Reynolds, but he is of the opinion that Shakespeare intended Hamlet only to feign insanity. The soliloquies, he said, especially show that Hamlet was crafty rather than insane. Indeed, in the first act Hamlet tells Horatio that he was going to assume insanity in order to gain his ends. Dr. Reynolds apparently believes, as some others have, that Hamlet suffered from obvious manic-depressive insanity.

COLORADO

Personal.—Dr. Hubert Work, formerly secretary of the interior, has tendered his resignation as chairman of the Republican National Committee.——Mr. Harvey T. Sethman, the new executive secretary of the Colorado State Medical Society, visited the headquarters of the Indiana State Medical Association in June to review the work of the executive secretary.——Dr. William Senger has been appointed chief surgeon of the Colorado Fuel and Iron Company's Corwin Hospital, succeeding the late Dr. Richard W. Corwin, whose assistant Dr. Senger was for twenty-seven years. Dr. Senger is the president-elect of the Colorado State Medical Society. This hospital was formerly known as the Minnequa Hospital.

DISTRICT OF COLUMBIA

Weather Bureau Grew from Medical Department.—The origin of the U. S. Weather Bureau is interestingly described by Dr. George M. Kober, in a reminiscence written since his retirement as dean of Georgetown University School of Medicine. When the medical department of the U. S. Army began recording observations on the weather and topography at military posts throughout the country in 1818, Surgeon General Lovell said:

> Every physician who makes a science of his profession or arrives at eminence in it will keep a journal of this nature, as the influence of weather and climate upon diseases, especially epidemics, is well known. From the circumstances of the soldier, their effects upon diseases of the army are peculiarly interesting, as by proper management they may in a great measure be obviated. To this end every surgeon should be furnished with a good thermometer, and, in addition to a diary of the weather, should note everything relative to the topography of his station, the climate, complaints prevalent in the vicinity, etc., that may tend to discover the causes of diseases, to the promotion of health, and the improvement of medical science.

Weather reports were still made at outlying army posts a few years ago; possibly they are now. Dr. Kober, who served in the medical department for twelve years, shows in the July *Military Surgeon* that the present U. S. Weather Bureau grew out of these early observations at army posts. Dr. Kober writes chiefly to memorialize Dr. Albert J. Myer, an officer who was prominent in the organization of the U. S. Weather Bureau, and of the signal corps of the army. Dr. Myer became interested in signaling among the Indians by means of beacon lights and smoke signals from hill tops, and he devised a system of signaling with flags by day and torches by night. He made demonstrations at a number of posts to show the value of his system of signaling and in 1860 was appointed major in the signal corps, later becoming chief signal officer. In 1869, he presented to the secretary of war a plan for storm signals and weather reports. In 1870, President Grant approved a resolution of Congress requiring the secretary of war to take observations at military posts and to give notice on the great lakes and along the sea of the approach of storms. Under this authority, Dr. Myer promptly established sixty-six stations, furnishing them with instruments used by the medical department and with some of its observers. On Nov. 1, 1870, Dr. Kober says, the first synchronous observations were read from these instruments by the observer sergeants and placed on the telegraphic wire for transmission to the signal office in Washington. Thus from the interest of the medical department in the effect of climate on the health of soldiers has grown a weather bureau which now receives reports from twelve stations in the Far East; twelve in Alaska, twenty in Mexico, thirty-five in Canada; twenty-five in Europe, thirty in the West Indies, 100 from ships at sea and 200 from points in the United States, and reports of the upper air from six kite stations and forty pilot balloon stations. Dr. Myer, who, Dr. Kober says, graduated in medicine from the University of Buffalo in 1851, worked in a telegraph office to pay his expenses at school. His character was such as to have distinguished him, at any rate, but this experience probably directed his interest to the signal corps.

ILLINOIS

Personal.—Dr. John F. Sloan will be the acting health officer of Peoria during the absence in Europe of Dr. Sandor Horwitz.——Dr. William A. Claxton has resigned as health officer of Morgan County, and superintendent of the Oak Lawn Sanatorium, Jacksonville, and will engage in practice in Indianapolis.

Chicago

Physician Invites Policeman to Funeral.—A Chicago physician, en route to the bedside of a seriously ill patient, was stopped, July 5, by a policeman at Crawford Avenue and Lake Street, and detained about twenty-five minutes, the Chicago *Tribune* says, for alleged violation of the speed laws. The physician finally demanded a ticket in order to hurry on. The next day he sent the policeman an invitation to the patient's funeral. The judge fined the defendant $25 and costs, saying that his policy was not to exempt physicians from the speed laws no matter what their errands were.

Personal.—Dr. Clarence St. Clair Drake, a former secretary and executive officer of the state department of health, and recently field director of the American Public Health Association, has been appointed by Governor Emmerson as managing officer of the Jacksonville State Hospital.——Dr. Wilber E. Post has been elected president of the Chicago Society of Internal Medicine for the ensuing year, and Dr. John P. O'Neil president of the Chicago Urological Society.——Dr. Stewart B. Sniffen, psychiatrist at the Mental Hygiene Clinic at the University of Maryland Hospital, has resigned to become clinical professor of psychiatry and a member of the staff of the health service at the University of Chicago, September 1.

Storage of Roentgen-Ray Films.—The Chicago Roentgen Society has passed a resolution stating that the storage of used roentgen-ray films has become an economic and insurance problem; that the reports of roentgenologists who are responsible for the diagnosis are of much more value and importance than the films, and that these reports make it unnecessary that large quantities of old films be preserved for a longer period than two years. The society deems it unnecessary in cases in which there is no likelihood of a legal procedure, to retain roentgen-ray films longer than six months. The society does not discourage the preservation of films of especially interesting conditions in view of their usefulness for teaching. It also declared it proper for roentgenologists to deliver films to physicians who refer a particular patient to them in case the referring physician desires to preserve the film.

IOWA

Personal.—Prof. Robert E. Buchanan, Ph.D., of the department of bacteriology, Iowa State College, has been requested to serve as president of the section of bacteriology of the International Botanical Congress to be held at Cambridge, England, in August, 1930.——Dr. Leroy H. Sloan, Chicago, with the assistance of local physicians, held a clinic at the Allen Memorial Hospital, Waterloo, June 2, and in the evening addressed about seventy-five physicians from nearby towns.

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LOUISIANA

Society News.—The Morehouse Parish Medical Society was addressed, recently, at Bastrop by Drs. Rae B. Leavell, on "Magnesium Sulphate Poisoning"; Wirt A. Rodgers on "Edema of the Lungs," and Smith I. Sims on "Phlegmasia Alba Dolens." ——Dr. Wilson W. Knowlton has resigned as director of the St. Landry Parish health unit to accept a position as district health officer with the Massachusetts State Board of Health, and Dr. Jules V. Roule, Jr., health officer of Richmond County, Georgia, has been appointed his successor.

MAINE

State Medical Election.—At the annual meeting of the Maine Medical Association, Poland Springs, June 17-19, Dr. Delbert M. Stewart, South Paris, was made president; Dr. Charles B. Sylvester, Portland, president elect, and Dr. Bertram L. Bryant, Bangor, reelected secretary. The next annual session will be at Portland, in June, 1930.

Society News.—The Kennebec County Medical Society, Waterville, was addressed, recently, by Drs. Howard F. Hill on simple glaucoma; Samuel H. Kagan, Augusta, on "Acidosis and Alkalosis," and Frederick T. Hill on otologic complications of swimming.—— The $200,000 memorial hospital at Bluehill was practically destroyed by fire, June 7. The patients were not injured. The hospital, provided about seven years ago by wealthy residents, was very well equipped.

Public Health Association.—The work of the Maine Public Health Association has been directed for more than a year by a "cabinet," comprising the four department heads, and the method will be continued during the coming year. The association encourages annual physical examinations by family physicians and early diagnosis of tuberculosis and cancer, a continuation of the public health nursing service, an increase in its clinic program, and the maintenance of the Three-Quarter Century Club, whose members are persons who have reached the age of 75 years. The club numbers about 14,000, and at the annual field day in Bangor last August about 5,500 of them turned out. An interesting feature was that a similar club in St. Petersburg, Fla., sent its secretary as a delegate to the reunion. The popularity of the association is indicated by the willingness of the public to contribute to its support. More than $64,000 was received during the year 1928. The expenditures were less than $63,000.

MARYLAND

Personal.—Dr. Arthur L. Oilar has been appointed health officer of Talbot County to succeed Dr. Clinton A. Kane, effective August 1. Dr. Oilar has been health officer of Gilmore County, W. Va., for three years. Dr. Kane goes to Cecil County as health officer.——Dr. Hugh H. Young, clinical professor of urology, Johns Hopkins University School of Medicine, has been appointed by Governor Ritchie as chairman of the state aviation committee; three pilots and an attorney are the other members.

Bibliotheca Osleriana.—The Enoch Pratt Free Library, Baltimore, has received a copy of the recently published "Bibliotheca Osleriana," a catalogue of literature on the history of medicine and science collected and partially catalogued by Sir William Osler and finished since his death by Lady Osler and others whom Dr. Osler designated. It contains 7,787 topics and 785 pages. The books to which it refers have been installed in the Osler Memorial Library at McGill University, Montreal, for which Lady Osler bequeathed an endowment of $50,000 for maintenance.

University Appoints a Dean Without a Degree.—Edward Wilber Berry, who was recently appointed dean at Johns Hopkins University, has been associated with the department of paleontology at Johns Hopkins for about twenty years. According to the New York *Times*, he has neither an earned nor an honorary degree. Dean Berry, whose formal education is said to have ended when he left high school, spent fifteen years in commercial and journalistic pursuits, but his real enthusiasm during that time was in the study of geology and paleontology. He was called to the university as an assistant in 1907 and has been there ever since. While Dean Berry does not belittle degrees, he believes they are a fixed symbol of accomplishment and too often make one feel that he has finished his learning. Our colleges are modeled after the English, which were modeled after the French. In the sixteenth century the University of Paris established the convention of a four-year college course, and that has been universally observed ever since. He says they are trying at Johns Hopkins to work along different lines. The aim is ultimately to do away with freshmen and sophomore students and to have small groups do independent work under the friendly guidance of professors; in other words, to make the university a place where men may work with scholarly freedom at the things they love.

MICHIGAN

Personal.—Dr. Hugo Cabot, professor of surgery and dean, University of Michigan Medical School, gave the address at the dedication of the new Dayton Clinic at Dayton, Ohio, June 22. ——Dr. Kenneth B. Keeler resigned as health officer of Albion, July 1.—— Dr. Thurman R. Laughbaum, DeTour, has been appointed health officer of Marquette, succeeding Dr. Lowell L. Youngquist, resigned. Dr. Laughbaum has been in practice in DeTour about ten years.——Governor Green has appointed Dr. William Elwood Tew, Bessemer, to membership on the state board of registration in medicine to succeed the late Dr. Samuel Edwin Cruse, Iron Mountain.

Detroit Responds Cheerfully.—In about twelve days, the citizens of Detroit contributed $3,000,000 for the Grace Hospital, the Salvation Army and the Narcotic Educational Association. No campaign in recent years has succeeded with less effort. The *Journal of the Michigan State Medical Society* says the reasons are obvious. First, Detroit is behind in hospital accommodations. Its hospitals all had waiting lists in the last year. Second, the Salvation Army appeals to the public. Third, the public was given a clear understanding of the situation before the campaign started. Of the funds provided $1,850,000 is to go to the Grace Hospital, and $1,000,000 to the Salvation Army. A building program is to be undertaken which will relieve the congestion of the hospitals.

Society News.—Dr. Walter J. Wilson, Detroit, addressed the Lenawee County Medical Society, May 16, on diagnosis of heart disease with special reference to the electrocardiograph. —— The Mecosta County Medical Society, Big Rapids, was addressed recently by Dr. Edward D. Spalding, Detroit, on "Modern Cardiac Therapy."—— The Jackson County Medical Society was addressed, May 21, by R. L. Kahn, Sc.D., Ann Arbor, on the International Conference on the Serum Diagnosis of Syphilis, conducted by the League of Nations, which Dr. Kahn attended.——The Shiawassee County Medical Society was recently addressed by Drs. Walter H. Snyder and Frank B. Ficklin, Toledo, on "Foreign Bodies in the Eye" and "General Surgical Indications in Traumatic Surgery," respectively; Dr. Robert S. Breakey, Ann Arbor, addressed the society in May on "Pyelography."——Dr. Rudolph J. E. Oden, Chicago, addressed the Oceana County Medical Society at Muskegon, June 28, on "Epigastric Hernia."

Annual Meeting in Upper Peninsula.—The thirty-second annual meeting of the Upper Peninsula Medical Society will be held at Ironwood, August 7-8. Dr. Henry E. Perry, Newberry, will give the president's address, and among others on the program are Drs. Clarence W. Hopkins, Chicago, "Treatment of Fractures"; Samuel F. Haines, Rochester, Minn., "Early Diagnosis of Exophthalmic Goiter"; John J. Walch, Escanaba, "Injection of Varices and Ulcers of the Lower Extremities," and Verne C. Hunt, Rochester, Minn., "Modern Methods of Treatment of Benign Prostatic Obstruction." The evening public meeting will be addressed by Dr. Arthur J. Cramp, director, Bureau of Investigation of the American Medical Association, on "Patent Medicine and Public Health." This meeting will be preceded by a banquet and followed by a dance. On the second morning, Drs. Edward L. Cornell, Chicago, will speak on "Forceps and Episiotomy"; Arthur C. Curtis, Ann Arbor, "Treatment of Diabetes Mellitus"; Louis J. Hirschman, Detroit, "Focal Infection from the Standpoint of the Proctologist"; Sumner L. S. Koch, Chicago, "Infections of the Hand," and William L. Maccani, Ironwood, "Personal Experiences with Pituitrin." The second afternoon will be devoted to a golf tournament.

NEBRASKA

Health at the Fair.—The Nebraska State Medical Association will supervise all health activities at the state fair through a committee, of which Dr. Edward R. Hays, Falls City, is chairman. This arrangement has been made with the state fair board. The Lancaster County Medical Society will supply the personnel for the emergency hospital on the fair grounds, which will be in the building formerly occupied by the Modern Woodmen of America. The physical examinations will be supervised by the dean of the state university college of medicine, Dr. John J. Keegan, whose assistants will be members of the state medical society. The exhibits, lectures and demonstrations will be supervised by the dean of Creighton Medical College, Dr. Herman V. Schulte. Other health organizations will cooperate. The quarters on the fair grounds previously used are being

remodeled so as to provide laboratories and add other equipment which will make the health examinations more thorough.

NEW HAMPSHIRE

State Medical Election.—At the annual meeting of the New Hampshire Medical Society, May 28-29, Manchester, Dr. Henry O. Smith, Hudson, was elected president, and Dr. Dennis E. Sullivan, Concord, reelected secretary. The next annual session will be at Concord, in May, 1930.

NEW YORK

Dr. Wilson Goes to Virginia.—Dr. David C. Wilson, formerly of the staff of the Clifton Springs Sanatorium, has been appointed associate professor of psychiatry and neurology at the University of Virginia Department of Medicine, Charlottesville, from which school he graduated in 1919.

State Medical Election.—At the annual meeting of the Medical Society of the State of New York, Utica, June 4, Dr. James N. Vander Veer, Albany, was made president; Drs. William H. Ross, Brentwood, elected president-elect; Floyd S. Winslow, Rochester, and Lyman G. Barton, Plattsburg, vice presidents; Daniel S. Dougherty, New York, secretary; Peter Irving, New York, assistant secretary; Charles Gordon Heyd, New York, treasurer; James Pedersen, New York, assistant treasurer, and John A. Card, Poughkeepsie, speaker.

Committee to Develop Health Resort.—Governor Roosevelt has appointed an advisory committee to assist a commission to prepare a program for the further development by the state of Saratoga Springs as a health resort. The committee comprises Drs. John A. Hartwell and Linsly R. Williams, president and director, respectively, of the New York Academy of Medicine; Dr. Malcolm Goodridge, professor of clinical medicine, Cornell University Medical School; Dr. John Wyckoff, Jr., secretary and associate professor of medicine, University and Bellevue Hospital Medical College; Dr. Lemuel W. Gorham, clinical professor of medicine, Albany Medical College, and E. H. Lewinski-Corwin, Ph.D.

New York City

Trucks Converted Into Diphtheria Clinics.—The street cleaning department has loaned six large trucks, used during winter for the removal of snow, to the health department, which has fitted them up as diphtheria prevention stations with refrigerators for keeping toxin-antitoxin. A physician and nurses will accompany each truck to congested sections of the city to give children the opportunity to be immunized in time to be protected when diphtheria becomes more prevalent in the fall. The trucks leave each morning from the health department offices and scatter over the city. On Saturdays and Sundays they will be at the beaches where the crowds congregate. They will go to any neighborhood on invitation. This novel method is a feature of the intensive campaign to eradicate diphtheria which has been carried on by the Diphtheria Prevention Commission for several months.

Campaign to Popularize Physical Examinations.—During November, the five county medical societies of Greater New York will endeavor to popularize periodic health examinations. The Medical Society of the County of New York has enlisted the cooperation of the other medical societies, each of which has appointed a special periodic health examination committee to carry out the proposed program. The Greater New York Period Health Examination Committee comprises Drs. Abraham J. Rongy, chairman, Fred W. Bancroft, Eugene Lyman Fisk, Iago Galdston, Samuel Dana Hubbard, Orrin S. Wightman and Linsly R. Williams. The objectives of the campaign will be to popularize periodic health examinations among physicians, as well as the public, and to place special emphasis on having the examination administered by the family physician. The committee requests the active support of every physician in Greater New York City in carrying out this program. It will also enlist the aid of the radio, theaters, press, schools, charity organizations, public official agencies, religious and social bodies and public utility organizations. The plans involve the expenditure of about $10,000.

OHIO

Society News.—The cornerstones of three buildings now under construction in the Medical Center of Western Reserve University, Cleveland, were laid during commencement; one of these buildings is the new Lakeside Hospital, which will cost $3,300,000 and accommodate 280 patients.——The council of the Ohio State Medical Association decided to hold the next annual meeting at Columbus, May 13-15, 1930.——The will of the late Dr. Frank E. Bunts bequeathed $5,000 to the Cleveland Medical Library Association and the will of the widow of Dr. I. N. Himes, $2,000. Dr. Bunts was recently president of the library association, and Dr. Himes created the nucleus of the library.

Memorial to Dr. Holmes.—The Holmes Hospital, facing from across the street the University of Cincinnati College of Medicine, was dedicated, May 26, to the late Dr. Christian R. Holmes, former dean of the medical college. The hospital is for the accommodation of members of the faculty. On the wall of the solarium which occupies the fifth floor is a mural decoration by Wessel, and over it this legend:

> The University of Cincinnati makes this acknowledgment to Bettie Fleischmann Holmes, Charles Phelps Taft, Annie Sinton Taft, William Cooper Proctor and Jane Eliza Johnston Proctor for their devotion to the interests of the people of this city.

Dr. Simpson Awarded Medal.—Dr. Walter M. Simpson, pathologist on the staff of the Miami Valley Hospital, Dayton, was awarded the Dr. Ward Burdick Medal by the American Society of Clinical Pathologists at Portland, Ore., July 8, for his research on tularemia. Dr. Simpson received a medal from the American Medical Association at its Minneapolis meeting last year for his exhibits on tularemia, some of which have been installed in the museum at the headquarters of the Association, 535 North Dearborn Street, Chicago. The Burdick medal is in memory of the founder of the American Society of Clinical Pathologists, who was its secretary until his death last year.

Professor Wallin Goes to Baltimore.—J. E. Wallace Wallin, Ph.D., since 1921 professor of clinical psychology, Miami University, Oxford, has been appointed director of a new department in the Baltimore City public schools with the title of director of special education, where he will supervise the school work of handicapped children. Among the positions which he has previously held is that of demonstrator in experimental psychology at Princeton University, assistant in experimental psychology at the University of Michigan, professor of clinical psychology, University of Pittsburgh and director of the laboratory of medical psychology at New Jersey State Village for Epileptics.

Personal.—Dr. John C. Oliver, professor emeritus of surgery at the University of Cincinnati College of Medicine and past president of the academy of medicine, was awarded the honorary degree of doctor of science by the university, June 15.——Dr. Harold H. Biggs, Wadsworth, has resigned as health officer of Medina County after nine years' service.——Dr. James A. Beer, for many years health officer of the city of Columbus, has tendered his resignation, effective Jan. 1, 1930, and it has been accepted by the board of health.——Dr. Leslie L. Bigelow, Columbus, formerly president of the state medical society, returned from a year's trip abroad, June 18. Dr. Bigelow spent the winter in Paris with his family, studying with Pachet, DeMartel and others; he went to other countries also to attend lectures and demonstrations. He was delegate of the American Medical Association to the British Medical Association's meeting last year, and delegate from the Ohio State University School of Medicine to the Institute of Public Health in Zurich, Switzerland.——In conferring a degree on Dr. Herbert P. Lyle, June 15, the University of Cincinnati College of Medicine granted an M.D. degree to the sixth member of the Lyle family since 1868.——Dr. Rolland L. Mansell, Medina, has been elected health officer of Medina County.

OKLAHOMA

Outbreak of Food Poisoning.—About 200 delegates and friends attending the state firemen's association meeting at Muskogee, May 29, became suddenly ill following a box supper, as a result, it was reported, of eating meat sandwiches. Only one victim was considered seriously ill. The local fire department's force, however, was so weakened by the outbreak that it was necessary to recruit volunteers.

PENNSYLVANIA

Hospital News.—Two units of the greater Bryn Mawr Hospital were opened, July 10, giving the hospital a capacity of 215 beds. Bryn Mawr Hospital is proceeding with an $8,000,000 building program. A wing to replace the old hospital will be started this year.——A new four story wing to the Chester County Hospital, Westchester, has been made possible through a gift of Pierre S. duPont.

Society News.—The annual picnic of the Lycoming County Medical Society will be held August 9. The society has been offered a permanent home in the Williamsport Hospital, provided it shares in the expense of making alterations and securing the furnishings.——The Cambria County Medical Society held a joint meeting, July 11, with the druggists' associations of Somerset and Cambria counties. An address was given by

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Dr. Wilmer Krusen, president of the Philadelphia College of Pharmacy, on "Present-Day Problems of the Medical and Pharmaceutic Professions."

Philadelphia

Naturopath Convicted.—Cyrus H. Raul, alias Dr. H. C. Raul, who claims to be a naturopath, was convicted in quarter sessions court, June 27, of practicing without a license and was released on $2,000 bail pending argument for a new trial. Raul claims to be a graduate of a "naturopathic college" at 1333 North Broad Street.

Personal.—Dr. James M. Anders was awarded the honorary degree of doctor of laws by Pennsylvania Military College, June 19.——Dr. Joseph Leidy has presented to the British a bronze bust of Charles Darwin, which will be placed in Down House, recently dedicated as a national shrine in honor of the great naturalist.

Society News.—The Samaritan Hospital of Temple University Medical School will open a bronchoscopic clinic when Dr. Chevalier Jackson returns from Europe. The equipment has been furnished by the Junior Auxiliary of the old Roosevelt Hospital.——Prof. Oskar Frankl of Vienna will give twenty lectures on gynecologic physiology and pathology at the Woman's Medical College of Pennsylvania and ten lectures on endocrinology, September 10-26.

Another Cancer Hospital.—The Society of Friends manages the Jeanes Hospital in Fox Chase, which has been open about a year for the treatment of cancer. Ambulatory cases are treated in the outpatient department, while in the hospital are accommodations for seventy-two patients. The will of Ann Jeanes provided the hospital with an endowment of $2,650,000. All rates are adjusted in accordance with the ability of the patient to pay. The medical director is Dr. Roscoe W. Teahan.

Merger of Hospitals.—Plans have been announced for the merger this fall of the Howard Hospital at Broad and Catharine streets with the Graduate Hospital of the University of Pennsylvania. The Howard Hospital, one of the oldest in Philadelphia, by this arrangement will be uniting with other old institutions. The graduate hospital of the university was organized in 1916, when the Medico-Chirurgical College and Hospital joined the university to form the graduate school of medicine. Two years later the Philadelphia Polyclinic was absorbed in this merger, and later the Diagnostic Hospital of Philadelphia. The graduate school of medicine now occupies a $2,000,000 modern building erected in 1927.

Portraits of Pasteur.—The Philadelphia County Medical Society is making arrangements for the painting of a large portrait of Pasteur which will be installed in its headquarters office at a date to be announced. Any physician or dentist can purchase from the society a framed 12 by 15 inch portrait of Pasteur for $2, delivered by mail. These pictures, says Dr. William D. Robinson, chairman of the committee, are most suitable for the office. The society will profit 41 cents on each picture sold and thus it is expected will be able to pay for the painting of the portrait. The smaller pictures are ready for delivery now and may be ordered through Dr. Robinson, 2012 Mount Vernon Street.

VIRGINIA

Chair of Public Health Established.—The University of Virginia announces the establishment of a chair of public health and hygiene and the appointment of Dr. Kenneth F. Maxcy of the U. S. Public Health Service as the first incumbent. Dr. Maxcy graduated at Johns Hopkins University School of Medicine in 1915 and received the degree of doctor of public health at Johns Hopkins in 1921.

Medical History.—The Robert Nicolson House on York Street in East Williamsburg is named in honor of one of George Washington's army medical officers. It was built about 1753 by Dr. Nicolson, who, in the war for independence, placed himself and his fortune at the service of his country. According to the Richmond *News Leader*, the United States, many years after he died, reimbursed his estate for his services.

University News.—The president of the Medical College of Virginia, William T. Sanger, LL.D., announces plans for development which will cover a period of years. The first unit, the school of nursing, has been completed at a cost of about $300,000. Other units will be constructed as funds are available. These will be a library in association with the Richmond Academy of Medicine, an outpatient department with laboratories for teaching chemistry, bacteriology and pathology, a building for clinical dentistry, a nurses' dormitory and a recreational center.

Personal.—Dr. Edwin L. McQuade is leaving the Henrico County Health Department to accept a position as instructor in Johns Hopkins University. His successor will be Dr. Allan L. McLean, who has been in charge of the Southampton County Health Department for three years.——Dr. Guy Hinsdale, Hot Springs, has been appointed medical director at "The Greenbrier," White Sulphur Springs, W. Va.——Dr. Joseph D. Collins, Portsmouth, has been appointed chief surgeon of the Seaboard Air Line Railway Company, succeeding the late Dr. Joseph M. Burke.——Dr. Edwin L. McQuade, for two years health officer of Henrico County, has resigned to accept a position as instructor of epidemiology at Johns Hopkins University School of Medicine, Baltimore. Dr. Allan L. McLean, Courtland, formerly health officer of Southampton County, will succeed him as health officer.——Dr. Harry Walker, Courtland, has been appointed health officer of Fairfax County, which is resuming its full-time health unit after a lapse of several years.——Dr. J. L. McElroy, formerly of Chicago, has been appointed superintendent of the hospitals (Memorial, Dooley and St. Philip) of the Medical College of Virginia at Richmond.

GENERAL

Research on Goiter.—The American Association for the Study of Goiter announces that a prize of $300 and a medal will be awarded to the author of the best essay on original research on any phase of goiter, presented at its annual meeting in Seattle in September, 1930. Manuscripts must be in the hands of the corresponding secretary, Dr. Julius R. Yung, Terre Haute, Ind., by July 4, 1930. Dr. Yung will give details of the award on application.

Automobile Deaths Reach Another Peak.—In the four weeks ending June 15, there were 602 deaths from automobile accidents in seventy-eight large cities of the United States as compared with 506 during the corresponding four weeks of 1928. The total number of deaths in these cities for the year ending June 15 was 7,799, which gave a rate of 23.8 per hundred thousand, an increase of 6 per cent in the rate in a single year. Seven of these large cities reported no deaths from automobiles in this four week period. These seven cities were Kansas City, Kan., Lowell, Mass., Lynn, Mass., New Bedford, Omaha, Rochester, N. Y., and Spokane, Wash. In these seventy-eight large cities the total number of deaths from automobile accidents reported was 602, but only 516 of them were due to accidents within city limits.

International Congress of Ophthalmology.—The committee in charge of the organization of the thirteenth International Congress of Ophthalmology reports that up to July 1 nearly 700 ophthalmologists have qualified for membership, and that 232 scientific communications, covering all branches of ophthalmology, have been received and will be presented during the congress. Ophthalmologists desiring to qualify for membership should promptly send the subscription of $10 to the treasurer, Dr. H. M. Roelofsz, director of the Incassobank, Heerengracht 531, Amsterdam (THE JOURNAL, Jan. 5, 1929, p. 74).

Society News.—The National Medical Association will hold its meeting at Newark, N. J., August 26-30. The executive secretary is Dr. Walter G. Alexander, Orange. The Inter-State Postgraduate Medical Association of North America will conduct its international assembly at the new Masonic Temple, Detroit, Mich., October 21-25. The executive secretary is Dr. Edwin Henes, Jr., 445 Milwaukee Street, Milwaukee.——At the annual meeting of the American Pediatric Society, May 20-22, St. Louis, Dr. Joseph Brennemann, Chicago, was made president and Dr. Howard Childs Carpenter, Philadelphia, reelected secretary. The next annual session will be held in Montreal, Canada.——Dr. S. MacCuen Smith, Philadelphia, was elected president and Dr. Thomas J. Harris, New York, secretary, at the annual meeting of the American Otological Society, in Atlantic City, May 22-24.——At the annual meeting of the American Neurological Association, Atlantic City, May 27-29, Dr. Smith Ely Jelliffe, New York, was elected president and Dr. Henry Alsop Riley, New York, reelected secretary.——Dr. Earl D. Bond, Philadelphia, was elected president of the American Psychiatric Association, Atlanta, Ga., May 14-17; Dr. W. English, Brockville, Ont., vice president, and Dr. Clarence O. Cheney, Poughkeepsie, N. Y., secretary. The next annual session will be in Washington, D. C., May 5-10, 1930.——Dr. William Healy, Boston, was elected president; Dr. James Ramsay Hunt, New York, vice president, and L. E. Emerson, Cambridge, Mass., secretary, of the American Psychopathological Association, Atlanta, Ga., May 17.——At the annual meeting of the American Ophthalmological Society, Hot Springs, Va., June 10-12, Dr. William C. Posey, Radnor, Pa., was made president; Dr. Arnold Knapp, New York, president elect, and Dr. Emory Hill, Richmond, Va., reelected secretary.

Presidential Order Concerning Cerebrospinal Meningitis.—President Hoover issued an order, June 21, intended to

prevent the further introduction of epidemic cerebrospinal meningitis into this country from China and the Philippine Islands. Since November, 1928, seventeen trans-Pacific passenger vessels with cerebrospinal meningitis on board among Oriental steerage passengers had arrived at American ports. The President ordered that no persons be introduced into the United States or any of its possessions or dependencies from any port in China or the Philippine Islands except under certain prescribed conditions. The secretary of the treasury, in accordance with the order, has issued regulations, which provide in part that:

1. Persons will be permitted to embark from China for the United States only under the supervision of a medical officer of the U. S. Public Health Service and only from Shanghai and Hong Kong and Manila in the Philippines, provided that facilities for detention and official observation before embarking are available and satisfactorily used. 2. Ships' officers and cabin passengers may embark from these ports only on evidence that official medical inspection shows such persons to be free from communicable or quarantinable disease, and that they have not lived within two weeks before embarking in premises infected with cerebrospinal meningitis, nor in a district where it is prevalent. 3. The crew and steerage passengers will be permitted to embark from such ports provided bacteriologic examination of the nose and throat has been negative for meningococci for three days before sailing and that they have been detained in small groups in quarantine or compound for not less than fourteen days before embarking during which time inspection shall have been made twice daily and no cases of cerebrospinal meningitis shall have been detected in the group. 4. No persons except the ships' officers and cabin passengers shall go ashore in ports except for disembarkation, and intercommunication between those on board and persons on shore will not be permitted.

Commonwealth Fund Announces New Health Program.—The Commonwealth Fund, New York, announces the adoption of a new plan to promote rural health and medical service in the United States. It will be placed in operation, Jan. 1, 1930. Unlike the Austrian project where, June 30, the fund completed a five year program for the development of child health service, and the four child health demonstrations which have been conducted in North Dakota, Tennessee, Georgia and Oregon, the new program will not stress child care. Its purpose will be to explore the possibility of bettering the whole range of health services in rural communities. The fund will center its effort in two states, to be selected, where, in cooperation with the state health department and leading medical schools, it will endeavor to strengthen county health work and foster the development of rural medical practice. In each state the fund will join in financing a field squad, comprising a physician and a public health nurse, to build up rural health activities. In two counties or districts in each state where a sound beginning has been made in public health organization, it will share the cost of a more complete staff so that the possibilities of the county health unit may be fully realized. In both cases the fund will give money only to the extent of matching local appropriations, and, while offering technical advice, will leave administration entirely in the hands of local authorities.

FELLOWSHIPS FOR RURAL PHYSICIANS

Recognizing that the rural physician is the cornerstone of progress in rural health, the fund will apply in these states a plan now used in connection with the six rural hospitals which it has helped build in the last three years. Under this plan, fifty rural physicians, practicing in the hospital districts, have been given opportunity to do graduate study at medical schools. They have been encouraged not to develop specialties, but to freshen the technics which they have found most useful in general practice. Fifteen such fellowships will be awarded each year in each of the states selected under the new program, chiefly in the districts chosen for intensive health development. In an effort to stem the tide which carries medical graduates into the cities, the plan deals also with undergraduate training. At two class A medical schools, selected because they already send a reasonable number of graduates into the two states in question, scholarship loan funds will be offered to qualified undergraduates who intend to spend a specified amount of time after graduation in rural practice. These two schools will also be given financial help in developing strong courses in preventive medicine, and in arranging special facilities for graduate study for men in active practice. In addition to these opportunities for physicians, graduate fellowships will be offered to three public health nurses at work in each of the two states and to one teacher employed in each state who is qualified to study methods of health education and to become a leader in this field. The state normal schools will be encouraged to establish or improve courses in health education.

It is not intended that any of these financial grants shall be continued indefinitely, and in most cases money will be given on a decreasing scale. The program is entirely flexible, however, and no rigid time limits have been set for the duration of the individual activities or for the period of cooperation between the fund and the state health departments.

Government Services

Wooden Marine Hospitals

Shortly after Pasteur's and Lister's discoveries, wooden hospitals became common. Asst. Surg. Gen. Frederick C. Smith of the U. S. Public Health Service says, in the *U. S. Daily*, that it was proposed then to destroy hospital buildings after they became infected with the newly discovered germs of disease. The pinewood marine hospitals in New Orleans and Baltimore were literally built to be burned, and the redwood wards in San Francisco are only a little safer. In addition to these risks are many temporary ward buildings erected during the World War and still in use by the government. However, more than $9,000,000 has been allotted to construct new marine hospital buildings. The new Cleveland hospital, which is about half completed, is financed by the sale of the old marine hospital property on Lakeside Avenue, which was purchased in 1842 for $12,000 and recently sold for about $2,000,000. The new Cleveland site is on twelve acres at Fairmont Boulevard at East One Hundred and Twenty-Fourth Street overlooking Lake Erie in a residential section. The abandonment of the Cleveland site was made necessary by the encroachment of noisy and smoky industries. The same circumstances have developed in Detroit, where a marine hospital is being built on a site above Belle-Island, acquired through the Lighthouse Service of the department of commerce. The Detroit hospital will extend almost to the water's edge on Lake St. Clair. The cost of this hospital will be about what the old marine hospital sold for. Plans are being prepared for a new marine hospital building at San Francisco, of about 450 beds, to cost $1,640,000; it will be on a site of about thirty-five acres on the Presidio overlooking the Golden Gate.

Navy Personals

After each name is the station to which the following medical officers have been ordered for duty unless otherwise indicated: Lieut. Comdr. Edwin D. McMorries, navy yard, Pearl Harbor, T. H.; Lieut. Harold I. Brown, navy hospital, San Diego, Calif.; Lieut. Paul H. Milton, navy yard, Norfolk, Va.; Capt. Owen J. Mink, Asiatic Station; Lieut. Comdr. Robert H. Collins, navy medical school, Washington, D. C.; Lieut. Comdr. Wilfred M. Peberdy, navy medical school, Washington, D. C.; Lieut. Comdr. John G. Powell, Asiatic Station; Lieut. Comdr. Harry Shaw, navy ammunition depot, Hingham, Mass.; Lieut. Comdr. George L. White, Asiatic Station; Lieut. Charles F. Behrens, Garde de Haiti; Lieut. James F. Finnegan, navy medical school, Washington, D. C.; Lieut. Arthur J. White, navy medical school, Washington, D. C.; Lieut. John N. C. Gordon, navy medical school, Washington, D. C.; Lieut. Olin C. Hendrix, navy hospital, Boston; Lieut. William J. Hogue, resigned, effective July 10; Lieut. Joseph H. Kler, resigned, effective August 31; Lieut. Guy E. Stahr, navy training station, navy operating base, Hampton Roads, Va.; Lieut. James T. Taylor, U. S. S. *Wyoming;* Lieut. Comdr. Russell I. Craig, third naval district, New York; Lieut. James F. Hays, navy hospital, Boston; Lieut. Joseph B. Gordon, resigned, effective August 15; Lieut. Emmett D. Hightower, navy training station, St. Thomas, V. I.; Comdr. Richard H. Laning, U. S. S. *Relief;* Lieut. Comdr. William T. Lineberry, navy station, St. Thomas, V. I.; Lieut. Comdr. William H. Michael, navy hospital, Annapolis, Md.; Lieut. Comdr. Robert B. Miller, navy hospital, New York; Lieut. Comdr. John T. Stringer, navy medical school, Washington, D. C.; Lieut. Comdr. Morton D. Willcutts, navy hospital, Great Lakes, Ill.; Lieut. Leslie O. Stone, navy hospital, Boston; Lieut. Charles C. Yanquell, naval academy; Lieut. Leland J. Belding, Guardia National de Nicaragua; Lieut. William S. Cann, U. S. S. *Mississippi;* Lieut. Irwin L. Norman, U. S. S. *Arizona;* Lieut. Charles G. Robertson, U. S. S. *New Mexico;* Lieut. Comdr. Harold S. Sumerlin, resigned, effective September 8; Lieut. Herbert L. Pugh, U. S. S. *Asheville;* Lieut. Malcolm G. Millar, U. S. S. *Antare;* Comdr. Ralph W. McDowell, navy hospital, Pearl Harbor, T. H.; Lieut. Comdr. Jesse W. Smith, navy hospital, Washington, D. C., for treatment; Lieut. Charles A. Costello, U. S. S. *Arctic;* Lieut. Willard S. Sargent, naval station, Guam; Lieut. Charles R. Tatum, navy hospital, League Island, Philadelphia, Pa.; Lieut. Ernest J. Losli, resigned, effective July 8; Comdr. Gardner E. Robertson, navy hospital, League Island, Pa.; Lieut. William F. E. Loftin, Navy Medical School, Washington, D. C.; and Lieut. Verden E. Hockett, navy station, Guam, effective August 1.

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Foreign Letters

LONDON

(From Our Regular Correspondent)

June 22, 1929.

Mind and Matter

In the Herbert Spencer Lecture on Psychologic Conceptions in Other Sciences, delivered at Oxford, Dr. C. S. Myers, F.R.S., maintained that the once striking characteristics distinguishing matter from mind were fading rapidly. Mind appeared to be no more "unsubstantial" than matter; matter to be no more "predicable" than mind. To account for the evolution, the history and conduct of the universe or of any organized individual within the universe, whether relating to mind, life or matter, not only mechanical principles but also a certain adapting, selecting, guiding activity must ultimately be included among the first principles of science. He proposed to consider how far our knowledge of the mental world was helpfully applicable to the material world. Just as there was nothing absolute in our spatial or temporal experience or in the quality of our sensations, so there was nothing absolute in the intensity of the latter. It was perhaps idle to ask whether, if physics had been willing to learn a lesson from psychology instead of trying to teach it one, its present position might have been sooner reached. We now found Newton's absolute time and absolute space discarded and replaced by concepts of relativity. There was now for physicists no absolute location of objects in space; their location varied with and was relative to the surrounding frame of space. Regarded as a mathematical point, an instant of time has vanished for the physicist; the psychologist's conception of the enduring "specious present" seemed to be replacing it. And the question had been lately raised whether matter itself was not for the physicist merely the way in which our minds perceived certain aspects of its structure. What were primarily sought now were the mathematical relations in terms of which the universe could be described. The domain of physics was also relinquishing its claim to being solely swayed by determinism. Psychology now recognized that the number of individually different mental characters was enormous and that the total resulting differences were so vast as to produce the apparent effect that individual minds differed not merely in degree but also in kind. Psychology was not primarily concerned in determining the average memory, the average emotionality, the average conduct of an unorganized mass of individuals under given conditions. Its primary interests lay in the study of the individual and of the differences between individuals. For psychology, average statements, mean values and the like were a mere blur or blind to individual differences; the average might well be but a statistical figment having only abstract value.

Scarcity of Dentists Foreshadowed

At the annual conference of the British Dental Association at Birmingham University, Sir Gilbert Barling, prochancellor of the university, said that one of the great risks to the Anglo-Saxon race was its poor resistance to dental disease, which became more manifest as time went on. Important as the question of digestion was, the state of the teeth also had a bearing on numerous toxic conditions from which the people suffered. Rheumatism, one of the bugbears of this country, was often induced by certain changes in the teeth setting up a poison in the body. Similarly, a toxic heart was sometimes due to the teeth. Infected teeth were, indeed, the cause of some of the most serious illnesses. Hence the importance of well educated dentists could not be overemphasized. Mr. Malcolm Knott, the new president, urged the formation of a board of dental studies in order to insure a thoroughly sound training. Commenting on the expense and time involved in qualifying for the L.D.S., he pointed to the falling entries into the profession and the increasing death rate, and said that if they allowed the general medical council to continue narrowing the entrance portal, either in time or in expense, they would be acting against the best interests of the dentist and the public. Unless twice the number of students qualified from the hospitals in the near future, the profession would be faced with an extremely dangerous position, from which the ministry of health might propose to extricate them in most unpleasant fashion.

American Scientific Expedition to the Congo

Members of an American scientific expedition, who have been staying in London, left for Brussels on the way to the Belgian Congo to study the life habits of the mountain gorilla and the chimpanzee, and, later, to investigate similar types in the lowlands of the French Kamerun. The expedition comprises Dr. William K. Gregory, curator of the department of comparative anatomy; Dr. J. H. MacGregor, professor of zoology, Columbia University; Mr. H. C. Raven, associate curator, department of comparative anatomy, American Museum of Natural History, and Dr. E. T. Engle, professor of anatomy, Columbia University College of Physicians and Surgeons. The expedition, of which Mr. Raven is leader in view of his tropical experience, has been sent out by Dr. Nicholas Murray Butler, president of Columbia University, which is cooperating with the College of Physicians and Surgeons. The party will leave Marseilles, June 26, and is due to arrive at Dar-es-Salaam, July 8. From this point it will entrain to Kigoma, Lake Tanganyika, and thence travel north to Lake Kivu, in the Belgian Congo. There, in the Belgian National Park, which has been reserved as a sanctuary for all forms of wild life, the expedition will begin its study of the gorilla and the chimpanzee, of whose social life, behavior and methods of locomotion films will be taken in order to test how far there is any correspondence with the evolutionary theory. The gorillas and chimpanzees found in this region live at an altitude of from 5,000 to 10,000 feet, according to Mrs. Mary L. Akeley, who, with her husband, the late Mr. Carl Akeley of New York, visited the reservation last year. The expedition has a complete equipment for the microscopic study of the blood and blood parasites of the gorilla and the chimpanzee. It will also take some films and study the habits of the native races in the Congo, in particular the Masai and the primitive African pygmies, of which a few still survive in the Kivu. "Nothing is known" said Dr. Engle, "concerning the blood and the blood parasites of the gorilla, or of how far their conditions correspond with those of the human being. We may be able to obtain some information on this subject. We shall not, of course, attempt to kill or capture specimens of gorillas, for these usually live only a short time in captivity." The party will also make studies of the feet and the general posture of native races. This idea was suggested by Prof. D. J. Morton of New York, the originator of the expedition, who desires to compare the feet of civilized man with those of his primitive brother in the wilds.

Darwin's Home: A National Memorial

Down House, the home of Charles Darwin, at Downe, in Kent, has been presented to the British Association by a surgeon, Mr. Buckston Browne, as a national memorial. The house has not only been saved to the nation as a memorial to Darwin but, by the efforts of Mr. Browne and the generosity of various donors, has been restored, so that it now appears almost exactly as it did during Darwin's occupation. The "old study," in particular, where the Origin of Species was written, has been put back into the precise condition in which Darwin used it, even to reproduction of the old wallpaper. A number of things that belonged to Darwin have been secured for this room and for the whole of the ground floor, which has

been made to look as much as possible as it did up to 1882. It is the wish of Mr. Browne that the house shall be regarded as the property of the nation and be open to visitors free of charge. He also desires that the house and grounds shall be used by the British Association for the benefit of science. In making the gift he provided an endowment for its maintenance and preservation for all time. He has now made a start in getting together a Darwin collection to be housed there. The donor has also commissioned Mr. John Collier to paint copies of his portraits of Darwin and Huxley, to be hung in Down House. Darwin, who, it is interesting to recall, was a son and grandson of a physician, worked continuously at Down House for almost forty years. Preparations for the Origin of Species went on from 1842 until the work received its final form in 1858-1859. As has been well said, from Down Darwin shook the world and gave human thought an impress that will endure for all time. Down was also the home of a large and happy family, perhaps the most gifted family ever born in England. There the great naturalist died, April 19, 1882, in his seventy-fourth year. The bust of Darwin, now in the Royal Academy, is to be removed to Down House as a present from Dr. Joseph Leidy, representing the American Association for the Advancement of Science.

At the opening ceremony a large company of eminent scientists and descendants of Darwin were present. Sir William Bragg, president of the British Association, presided. After declaring the house open to the public, Sir Arthur Keith said that they had the best of reasons for believing that Darwin came of a stock which had lived for more than 3,000 years on English soil; that seemed a sufficiently long period to make him English to the core. He was gentle and modest almost beyond parallel, loving and loved in his home as few men had been, thoughtful for his community, just and charitable even to those who sought to brand him as an enemy of mankind. Down House was an abode of goodness as well as of genius; that was one reason why it should become a national heritage. The present ceremony had an international character, and it was right that that should be so. Darwin, quite unwittingly, made these few acres of Kentish upland an international possession. In those grounds, gardens, orchards, meadows and walks, and within those walls, were slowly hammered, hot from fact, new doctrines, which slowly penetrated to the ends of the earth, giving humanity a new interpretation of living things and of its relationship to them. Human thought was forcibly and permanently thrust from its old time-honored ruts. Even more important than his teaching was the manner in which Darwin taught. He permitted the bare, unhusked truth to speak for itself; he went only so far as the light of reason would carry him. Only men who taught thus continued to teach for all time.

Dr. Joseph Leidy mentioned that, on the first edition of the Origin of Species reaching America, Darwin was elected a corresponding member of the Philadelphia Academy of Natural Sciences, on the motion of Joseph Leidy, the naturalist, and that probably was the first foreign society to accord the book official recognition. Darwin wrote: "It shows that some naturalists there do not think me such a scientific profligate as many think me here." A congratulatory message was also received from Professor Osborne, president of the American Association for the Advancement of Science.

Protection from X-Ray Films

In view of the Cleveland disaster, an X-Ray and Radium Protection Committee, which met under the chairmanship of Sir Humphry Rolleston, intends, as further facts reach it, to investigate into the whole question of possible danger from x-ray films, and to draw up such recommendations as are considered advisable. In the meantime, the committee has made the following suggestions: 1. Care should be taken to insure that x-ray films, whether exposed or unexposed, are stored and handled in such a manner as to reduce to a minimum the danger of fire. 2. Films should not be left lying about but should be stored in filing cabinets or cupboards in such a way as to limit the number of films actually lying open during reference. 3. On no account should smoking or naked lights be permitted in proximity to any film store. 4. In the case of large hospitals or institutions where considerable numbers of films may be accumulated, a special store, preferably isolated, should be arranged solely for such films.

PARIS

(From Our Regular Correspondent)

June 12, 1929.

The Proposed Creation of an Ethical Order of Physicians

A number of years ago, certain groups of physicians proposed the institution of a purely professional jurisdiction in the form of an ethical order of physicians, comparable with the ethical order of advocates. The question has often been discussed in the medical syndicates, in which opinions have been divided. Some favored the creation of such a body in order that the misdemeanors or torts of physicians might be judged by their fellow physicians, and not subjected to the ordinary tribunals, except on appeal, while others thought such "machinery" would be useless, inoperative or even dangerous, as it might open the way for the venting of local jealousies against a confrère, newly arrived on the scene.

Dr. Balthazard, professor of legal medicine at the Faculté de médecine de Paris, drew up a carefully planned project, which was considered in a previous letter and which the representatives of the syndicates have unanimously approved. Balthazard chose a very opportune time for the presentation of his plan. The social insurance law, which goes into effect in April, 1930, and of which the whole medical profession disapproves, opens the way for numerous frauds if a physician is willing to conspire with the insured, with the pharmacists and even with the functionaries of the regional health insurance societies. During the past year or more, almost thirty physicians have been summoned to trial and have received severe penalties for misdemeanors of this nature, committed in the course of the application of the law pertaining to occupational accidents. It may be foreseen, therefore, that the law pertaining to social insurance, which will reduce many physicians to a wretched existence, will be the occasion for many more scandalous events.

M. Loucheur, the minister of labor and hygiene, who attaches great importance to the application of this law, favored acceptance of the Balthazard project, but was obliged by law to consult first the Academy of Medicine, which has taken a hostile attitude toward it. Dr. Brouardel, the medicolegalist, formerly dean of the Faculté de médecine de Paris, has, at the request of the academy and in cooperation with Dr. Le Gendre, presented a communication on the subject, in which he reaches conclusions that are opposed to those of Balthazard. It is possible that the academy, while recognizing the utility of a professional tribunal, is averse to having the surveillance of the morals of the medical profession pass into the hands of the medical syndicates, fearing that their authority might develop to its own detriment.

The Brouardel-Le Gendre committee takes the open stand that the medical syndicates, by reason of their composition, origin and spirit, are incompetent to be responsible for the surveillance of professional morality, and suggests instead other measures. The first suggestion is that a code of deontology setting forth in complete form the full range of the professional duties of physicians be drawn up. The code thus adopted should be made the subject of instruction at the facultés de médecine, and regional bodies should be appointed to enforce its application. The basic principle of the code would be disinterestedness, or

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freedom from selfish motive. Medicine, the committee stated, is a liberal profession that is not compatible with selfish pecuniary preoccupations. While the physician is fully justified in regulating his fee in accordance with the increased cost of living, he must not allow the spirit of commercialism to take possession of him. The regional bodies would represent the medical profession as a whole, under the authority of the professors of the facultés de médecine and with the collaboration of the magistrates. They would pronounce judgment on the lapses from professional duty. They would impose penalties ranging from warning and censure to interdiction of the practice of medicine for six months. A central body would serve as a court of appeals.

It is not likely that the medical syndicates would ever support a project that would rob them of all their influence and deprive them of one of the features that attract the physicians to them. The facultés de médecine are only instructional bodies whose members are chosen by reason of their personal scientific worth, but they do not know the life of the modest practitioner. Many of them do not practice medicine at all but live in their lecture rooms, their laboratories and their studies. They have fixed salaries, and it is easy for them to talk to the small practitioners about altruistic devotion to their profession. It is evident, therefore, that the problem is no nearer solution but rather more confused than ever.

Central Bureau of Medical Societies

The central bureau of medical societies, recently established in Paris on the initiative of Dr. Noir, has for its purpose the creation of an understanding among the professional societies which, for various reasons and under diverse circumstances, come to the aid of those physicians and physicians' families whose situation is reported to them as worthy of investigation. These societies frequently know one another very imperfectly and are often unknown to those who may need to have recourse to them. This connecting link, which was much needed, must, however, in its dealings with the adhering societies, strictly respect their absolute independence, which is justly conserved by their directors and which is indispensable for their proper functioning.

In order to effect the desired contact between the various associations, societies and organizations naturally interested in the project of Dr. Noir, the offices of the Association générale des médecins de France were last winter placed at the disposal of whatever representatives the convened organizations might wish to send for that purpose. From now on, the secretariat of the new bureau will be at the disposal of the societies giving aid to physicians (whether adherent or not) and will receive from them, at 5, rue de Surène, all requests for aid and fraternal assistance which they themselves have been unable to satisfy. These requests, arranged according to the alphabet and kept strictly confidential, will constitute the nucleus of a file conceived on the same plan as that so fortunately created in 1880 by the bureau of charitable organizations. These requests will be given consideration without delay by the general secretariat, which will make it possible to direct the physicians or physicians' families in a precarious situation to that adherent society which appears to be in the best position to render aid in the given case.

This centralization of requests will prevent duplication of aid on the part of aid societies, thus husbanding resources that are often difficult to secure. In turn, the secretariat of the bureau requests the fraternal cooperation of all societies, whether adherent or not, in sending in information with regard to openings for physicians, or to any paramedical employment, which may reach them, so that the secretariat may render prompt aid to physicians in search of positions, to industrial organizations seeking collaborators and to physicians' families, whose notices in the professional journals reveal all too often their painful situation.

BERLIN

(From Our Regular Correspondent)

June 6, 1929.

Regulations in Regard to the Administration of Health Services Among the Insured Population of Germany

The federal government has issued regulations in regard to the administration of health services among the insured. They have their legal basis in the law pertaining to the elaboration of employees' and disability insurance and concerning the care of health in the federal insurance act of July 28, 1925. The regulations in question concern solely the health care to be given tuberculous and venereal patients. The recent promulgation is confined to these two classes of patients because there is imperative need of improvement in these fields and because in these domains certain experiences have been accumulated that will serve as a basis for further research. Once the insurance carriers have become used to cooperating in these fields, they may more easily be induced to cooperate with reference to other common diseases. The regulations comprise general instructions and measures to be followed in a single case. On account of the danger of contagion that threatens the whole family in case one member has tuberculosis or a venereal disease, other members of the family are placed on the same footing as the insured, with reference to health care, and with regard to tuberculosis. Between the *krankenkassen* and the disability insurance (or employees' insurance) there is a differentiation as to jurisdiction, in that the latter assumes mainly the care of the tuberculous, while the *krankenkassen* have the main charge of the venereal patients. Health care is to be given all persons who are insured against disease, disability (invalidity) and occupational accidents. A member of a *krankenkasse*, if he has lung disease, is, however, entitled to health care as furnished by the insurance department, even though he is not insured against disability (invalidity).

HEALTH CARE FOR THE TUBERCULOUS

Health care in tuberculosis consists in the provision of medical treatment, the supplying of medicines and other therapeutic measures, hospitalization, sojourn in a health retreat, and domiciliary attendance. To the therapeutic measures belong the application of artificial pneumothorax and the furnishing of food and cordials. The granting of health care must be preceded by a medical examination. If necessary, the examination must be made by a specialist, or it may require an observation in the hospital with whatever degree of thoroughness is needed for the determination of the disease and for the right choice of therapeutic measures. Certain criteria or directions are set up with regard to the choice of the proper institutions, and as to what patients should be referred to sanatoriums, which ones to the tuberculosis hospitals, which to the general hospitals, and which to the homes for convalescents.

Likewise, after completion of institutional care, the condition of the patient will continue to be observed in accordance with medical advice. In connection with the health care given lung patients, financial assistance is accorded in certain cases, and steps are taken to prevent relatives and friends of patients from becoming infected. The financial assistance may cover food, house or room rent, and clothing. To prevent spread of the infection, provision is made for the examination and surveillance of the members of the patient's household with whom the patient comes in contact, and particularly the regular examination of children and juveniles, if need be, with the aid of roentgen rays. Measures must be taken to prevent patients from being endangered through contact with other patients. If tuberculous patients with active tuberculosis are unsuitable for sanatoriums, they should be hospitalized in institutions in which provisions can be made for adequate separation of the patients who are gravely ill.

In connection with the granting of health care, there are very comprehensive regulations designed to assure the complete cooperation of the insurance carriers *inter se* and with the physicians and health centers (*fürsorgestellen*). The *krankenkassen* must see to it that the panel physicians (*kassenärzte*), the health care centers (*fürsorgestellen*), and the other centers on which the obligation rests, report without delay the tuberculous insured and members of their household who have become infected. The notice must be accompanied by a report on the results of the medical examination, together with an expert's recommendations as to the measures that should be adopted. The *krankenkassen* add whatever supplementary information is needed; transmit the order to the insurance department, and inform the health center for tuberculous patients. The insurance department secures whatever further information is needed to establish the status of the patient, appealing, if necessary, to the health care centers or to the panel physicians for additional vouchers. Preferences of the patient as to the choice of a sanatorium or of other institutions are to be considered. The insurance department may assign to the *krankenkasse*, in whole or in part, the carrying out of the requisite health measures. Until the insurance department takes definite action, the *krankenkasse* must grant whatever aid is needed, especially if delay would jeopardize the patient.

Among the general measures against tuberculosis for which the insurance departments may utilize funds may be mentioned the creation, promotion and support of health care centers for the tuberculous, therapeutic and convalescent centers for tuberculous adults and for tuberculous or menaced children, homes for gravely ill tuberculous patients who are liable to spread infection, and the creation of forest convalescent centers and so-called day convalescent centers, from which patients return home for the night. All these arrangements and centers must be properly located, suitably equipped and well managed. Among the general measures may be reckoned furthermore publicity campaigns to enlighten the people in regard to tuberculosis, its prevention and the methods of combating it; likewise, the promotion of arrangements that will bring prompt and systematic aid to persons whose health is menaced, strengthen bodily resistance, improve environmental health conditions, and afford needed healthful exercise. The carriers of disability (invalidity) and employees' insurance are empowered to provide dwellings or accommodations for patients by the granting of loans on especially favorable conditions. Finally, the insurance carriers must freely offer their sanatoriums and hospitals for the tuberculous as institutions in which medical students and nurses may receive training and in which physicians may pursue postgraduate work. Other centers may be utilized for similar purposes.

HEALTH CARE FOR VENEREAL PATIENTS

The regulations concerning the measures to be adopted for the care of the health of venereal patients may likewise be divided into those of a general nature and those affecting individual cases. Among the latter may be mentioned (in addition to the granting of medical treatment, medicines, therapeutic remedies and institutional care) the giving of advice to patients, with especial reference to the consultation centers. Institutional care should be granted with as much generosity as possible (always when there is danger of the disease being spread), especially when the occupation of the patient is such as to expose others to the disease. As in the case of tuberculous patients, the granting of health care to venereal patients must be preceded by a medical examination. As for the mode of procedure, the regulations are much the same as those first detailed with reference to health care granted tuberculous patients, especially with regard to the cooperation of the insurance carriers *inter se*, and their relations to the physicians and to the consultation centers. In principle, the health care to be afforded venereal patients rests primarily on the *krankenkassen*. The insurance carriers are not usually expected to intervene until the *krankenkassen* have performed their services for the term required. The *krankenkassen* must report to the insurance department having jurisdiction all the cases known to them in which, on account of venereal disease, insured persons or members of their households are in need of the application of health measures but in which an obligation does not rest (or no longer rests) on the *krankenkassen*. The insurance department may assign to a *krankenkasse* the duty of carrying out such measures as it shall deem advisable. On the other hand, "if venereal patients produce evidence that they cannot reveal to the *krankenkasse* the nature of their disease without being likely to suffer damage to their private person, the insurance department must, on demand, provide for the carrying out of the needed therapeutic measures." The *krankenkasse* must pay the cost of such treatment, but the name of the venereal patient may not be revealed to the *krankenkasse* by the insurance department. Among the general measures of the insurance carriers, with respect to the combating of venereal disease, may be mentioned the creation, promotion and support of an adequate number of suitably equipped and well conducted consultation centers.

For the performance of these duties, the insurance carriers should unite and should form leagues or mergers with the representatives of public and private welfare departments, the state and communal health officers, the physicians and other bodies interested. These mergers would form their own constitutions, decide on their mode of organization, regulate their fields of labor and their forms of activity, and determine how funds are to be raised and how expended. It should be emphasized that the regulations do not prevent the mergers from interesting themselves in fields of health care other than tuberculosis and venereal disease. The regulations establish only the minimum that must be accomplished.

The Growing of Cancer Cells

For the past three years, the Copenhagen physician Dr. A. Fischer has been doing research work in the Kaiser-Wilhelm-Institut für Biologie. His studies on the effects of increased oxygen pressure on the growth of cancer cells, which he has been carrying on in collaboration with the engineer Buch-Andersen, have awakened especial interest. At the invitation of the directors of the Kaiser-Wilhelm-Gesellschaft, Fischer gave a further account of his work. He stated that whereas, until recently, researches were confined to cancer tumors, we are now able to grow cultures of cancer cells and normal cells in exactly the same manner as we grow bacteria, and study thus their mode of existence—their biology. Various tissue cells can be preserved indefinitely by growing them outside the organism. Some of the cultures are now several years old—one is 17 years old. The growth and the metabolism can be measured, and the influence of changes in the surrounding medium can be studied. As the carriers of malignancy, it has been possible, with the aid of such tissue cultures, to recognize definite cells; these cells preserve this capacity as long as they survive, and if inoculated into healthy animals produce a cancerous tumor. There is no specific causative agent of cancer; though one might, with reason, designate the cancer cell itself as the causative agent of cancerous disease. The cancer cell is short-lived and has little resistance. It has a modified energy metabolism (marked cleavage of lactic acid even in the presence of oxygen) and possesses marked protein-splitting and cytolytic powers. As compared with normal cells, the cancer cell is very unpretentious as regards nutrition; for example, it can build up its cellular substance from blood serum alone, whereas this does not suffice for normal cells. Healthy tissue cells, on coming in contact with cancer cells, give off substances that accelerate the growth of the cancer cells. In cultures the cancer cells overgrow and stifle all the normal cells. These peculiarities serve to explain the unchecked growth of a cancer tumor in the body. Dr. Fischer called repeated attention to the aid he had received in his researches from the articles by Otto Warburg on the bio-

chemical processes connected with the respiration of the cell. The account of Dr. Fischer was supported by the projection of a film. He showed plainly the physiology of healthy and of diseased cells. As most of the changes in the cells take place very slowly, it was often necessary in the cinematographic reproduction to increase the speed 480 fold. With the aid of a magnification of 60,000, the motions and the growth of the cells could be distinctly followed. Of especial interest was the portion of a chicken's heart, which is part of a 17 year old culture sent from New York and which has been preserved in full growth for two years at Dahlem, near Berlin.

JAPAN

(From Our Regular Correspondent)

June 8, 1929.

The Plague in Osaka

Bubonic plague broke out on board the ships that entered the harbor of Osaka at the beginning of May. One member of the crew of the S. S. *Sumatra* was found to have a genuine case of plague only after his death on the evening of May 5. The ship had just come from Bombay, and the greater part of its cargo of cotton was known to have been sent to Tokyo, so the Tokyo authorities took the precaution of disinfecting the Mitsubishi storehouses where the bales had been stored. It was then discovered that the S. S. *Genzan-maru* had arrived in Osaka with a case and that one of the first class passengers from this ship had left the city to go to Tokyo. On the night of May 9 another sailor of the *Genzan* died of the disease, and on the eleventh a cook of the *Sumatra* also died. On May 12 an infected rat was discovered in another ship called the *Seiyo-maru*, which had left Bombay on the fifth and touched at Singapore and Hongkong. Owing to these successive incidents, the emperor, who was expected in the city at the end of the month, was implored to postpone his visit for a while.

Hospitals

The hospital attached to the South Manchurian Medical College, which has been in process of construction since 1925, was partially completed and opened on February 4. When completed it will provide 600 beds.

The Tokyo Policemen's Hospital, which has been under construction since 1927, was completed and the opening ceremony was held on March 18.

The Tokyo Jikei Hospital, attached to the Jikei Medical College in Tokyo, which has been a temporary barracks since the earthquake, celebrated the laying of the corner stone of its new building near the end of March. It will be completed by August, 1930.

The Kyushu Imperial University has set to work on the new enlargement of its hospital, taking advantage of the budget that was passed during the last session of the Diet. The heating system and other equipment will be improved.

The Osaka Hospital of the Japan Red Cross Society was partly completed on April 8 and the opening ceremony was honored by the presence of the patron prince of the blood Kan-in. It will take eight more years to finish the building.

The Shitaya Hospital of the Tokyo Prefectural Physicians' Association, which has been reorganized, was opened on April 25. The new director is Prof. Dr. Hayashi; the vice director is Dr. Hirai, assistant professor in the Keio Medical College.

The Saiseikai Hospital at Kojinachi, Tokyo, which has been attached to the Army Medical College at Ushigome, was opened on June 1.

Medical Meetings

Spring is the season for medical meetings in this country, and many of note have been held thus far. The following were held in the Tokyo Imperial University: the thirty-third general meeting of the Otorhinolaryngologic Society under the presidency of Dr. Masuda; the thirty-third general meeting of the Japan Ophthalmologic Society under the presidency of Dr. Ishiwara; the first general meeting of the Japan Hygienic Society; the first general meeting of the Japan Parasitologic Society under the presidency of Dr. S. Goto, and the third general meeting of the Microbiologic Society.

The following meetings have recently been held in the Keio Medical College: the thirty-seventh general meeting of the Japan Anatomic Society under the presidency of Dr. Okajima, at which time the memorial publication was dedicated to Emeritus Professor R. Koganei, in commemoration of his seventieth birthday; the thirty-fourth general meeting of the Japan Pediatric Society under the presidency of Dr. Karasawa, at which time Dr. S. Kuriyama, professor in the Tokyo Imperial University lectured on "Differences in the Biologic Nature of Children."

The councilors' meeting of the Carcinoma Investigation Society was held in the Japan Industrial Club in Tokyo, March 11. Dr. M. Magayo was elected president, and Drs. H. Shioda and R. Inada vice presidents. Dr. Yamakawa, chief of the Carcinoma Hospital, reported on the results of the clinical treatment of carcinomatous cases for 1928.

From March 6 to 12 the seventeenth general meeting of the Po-I-Society, which is composed of Chinese and foreign physicians, was held in Shanghai under the presidency of Dr. Ho. The Japanese guests at the meeting were Drs. N. Kuno and S. Kubota, professors in the South Manchurian Medical College.

The White Cross Society, one of the antituberculosis societies in this country, held a general meeting, May 22, in the White Cross Hall, Tokyo. Dr. K. Kondo gave a lecture on "Tuberculosis and Its Prevention."

From April 1 to 3 the twenty-sixth general meeting of the Internal Medical Society was held in the city of Sendai, the site of the Tohoku Imperial University. The opening address was given by President Kumagaya. Dr. C. Kusumoto, professor in the Osaka Medical College, was chosen president for the next session, which is to be held in Osaka. Dr. J. Iwanaga lectured on "Tuberculosis of the Intestine." The thirtieth general meeting of the Surgical Society was held in Sendai at the same time. Dr. K. Inabe, professor of surgery in the Kyoto Imperial University, was elected president for the next meeting. Dr. S. Kogawa lectured on "The Function of the Kidneys and Their Diseases." Other meetings held in the city during April were: the twenty-seventh general meeting of the Neurologic Society, at which Dr. K. Miura, emeritus professor in the Tokyo Imperial University, was chosen president for the next year; the nineteenth general meeting of the Pathologic Society, at which Prof. Dr. M. Murata, professor in the Osaka Medical College, was elected as the next president; the twenty-first general meeting of the Carcinoma Society under the direction of vice president Dr. Sata (owing to the recent death of President Dr. Honda), at which time Dr. M. Nagayo was chosen president for the next meeting; the general meeting of the Japanese Society of Infectious Diseases, under the presidency of Dr. Futaki; the thirty-seventh general meeting of the Japan Gastro-Enterologic Society, under the presidency of Dr. Hirayama, and the twenty-seventh general meeting of the Japan Gynecologic Society.

Delegate to International Physiologic Conference

Dr. G. Kato, professor in the Keio Medical College, accompanied by Drs. Hayashi, Akiba, Sakaguchi, Nakayama and Hara, is to attend the thirteenth International Physiological Conference, which is to be held at Harvard University, Boston, beginning August 19. His lecture to be given at the meeting is on "Wedensky's Inhibition Phenomena."

A New Medical Building

A new medical building has recently been opened in Tokyo. It is of concrete, five stories high, covers an area of some 600 square meters, and has a capacity of sixty beds. It is to be operated on the open staff plan.

Marriages

A. W. SHEWMAN, New Castle, Pa., to Miss Anna C. Haines of Maytown, at Valley Forge, June 1.

CHARLES LEWIS BAIRD, Dillwyn, Va., to Miss Mary Virginia Smith of Richmond, June 25.

JOHN A. CAMPBELL, Williamsport, Pa., to Miss Muriel Card Portmore of Philadelphia, June 25.

JAMES WALTER BRICE to Mrs. Ethel Scoville Howell, both of Titusville, Pa., June 29.

FOSTER JAMES HUDSON to Miss Neva Alice Bowman, both of Indianapolis, June 15.

JOHN JOSEPH HAMMOND to Miss Gertrude Hoffman, both of St. Louis, June 19.

JOSEPH N. GANIM, Cincinnati, to Miss Adama Hamrah of Brooklyn, June 8.

HOWARD K. SHROM to Miss Muriel Woodrum, both of Detroit, July 8.

LLOYD D. GASS to Miss Hazel Noble, both of Klamath Falls, Ore., June 15.

WILLIAM STARK to Miss Ethel Goldstein, both of Brooklyn, June 12.

Deaths

Alice Littlejohn Goetz ✙ Santa Barbara, Calif.; Howard University School of Medicine, Washington, D. C., 1906; formerly director of physical education at the Ohio State University, Columbus, Kansas University, Lawrence, University of Arizona, Tucson, and the University of Southern California, Los Angeles; aged 48; died, June 3, in St. Francis Hospital, of Hodgkin's disease.

Silas C. Blaisdell, Winterport, Maine; Medical Department of the University of the City of New York, 1882; member of the Maine Medical Association; at one time demonstrator in anatomy at his alma mater; on the staff of the Waldo County Hospital, Belfast; formerly on the staffs of the Bushwick Hospital and the Wyckoff Heights Hospital, Brooklyn; aged 73; died, June 12, of cerebral hemorrhage.

William Hardin Sears ✙ Huntingdon, Pa.; Medico-Chirurgical College of Philadelphia, 1898; member of the American Academy of Ophthalmology and Oto-Laryngology and the American Laryngological, Rhinological and Otological Society; on the staff of the J. C. Blair Memorial Hospital; aged 59; died suddenly, June 14, of heart disease.

Darwin Mills Keith ✙ Rockford, Ill.; University of Brussels, Belgium, 1906; M.R.C.S., England, and L.R.C.P., London, 1906; member of the American Academy of Ophthalmology and Oto-Laryngology; served during World War; on the staff of the Rockford Hospital; aged 61; died, June 8, of pneumonia.

Richmond Millett Fee, New Virginia, Iowa; College of Physicians and Surgeons, Keokuk, Iowa, 1898; member of the Iowa State Medical Society; formerly on the staff of the Osceola (Iowa) Hospital; aged 65; died, June 4, as the result of a cerebral hemorrhage which occurred about five months ago.

Jack Herbert Swafford died, June 10, from the effects of gas inhaled in the disaster at the Cleveland Clinic, May 15, where he was a member of the staff. Dr. Swafford, who was 39 years of age, graduated from the Vanderbilt University School of Medicine, Nashville, Tenn., in 1913.

George Fales Baker ✙ Philadelphia; University of Pennsylvania School of Medicine, Philadelphia, 1887; aged 65; died, June 3, of exhaustion following convulsions due to changes in the basal ganglions, the contributary cause "Parkinson's syndrome."

Clarence Dryden Barker, Chicago; University of Illinois College of Medicine, Chicago, 1904; member of the Illinois State Medical Society; on the staff of the Norwegian-American Hospital; aged 49; died, June 19, of carcinoma of the pancreas.

Thomas Robert Hastings, Reedsburg, Wis.; Chicago Physio-Medical College, 1897; member of the State Medical Society of Wisconsin; visiting physician to the Saulk County Asylum, Home and Farm; aged 70; died suddenly, June 10.

Richard Humfrey Graves Osborne ✙ San Francisco; University of Pennsylvania School of Medicine, Philadelphia, 1866; member of the Medical Society of the State of Pennsylvania; aged 85; died, June 8, of arteriosclerosis.

John Melvin Gardner ✙ Santa Cruz, Calif.; University of Nashville (Tenn.) Medical Department, 1909; aged 54; died, May 8, at the University of California Hospital, San Francisco, of pneumonia, following cerebral hemorrhage.

Robert Edward Mehler, Sharon, Pa.; University of Pittsburgh School of Medicine, 1913; member of the Medical Society of the State of Pennsylvania; aged 43; died, June 11, of tuberculosis of the lungs and kidneys.

James Robert Montgomery ✙ Bloomsburg, Pa.; Jefferson Medical College of Philadelphia, 1880; on the staff of the Bloomsburg Hospital; aged 71; died, May 18, following embolism of the popliteal artery.

William N. Cunningham, Swissvale, Pa.; Jefferson Medical College of Philadelphia, 1874; member of the Medical Society of the State of Pennsylvania; aged 78; died, June 6, of pyelonephrosis and chronic nephritis.

Dell Frank Rice ✙ St. Louis; Hospital College of Medicine, Louisville, 1892; medical superintendent of the Hospital of Masonic Home of Missouri; aged 66; died, June 6, of lobar pneumonia and angina pectoris.

Avery Moulton Foster, Candia, N. H.; Medical School of Maine, Portland, 1875; member of the New Hampshire Medical Society; aged 77; died, May 7, at the Hastings Hospital, Manchester, of coronary embolism.

Andrew Temples ✙ Statesboro, Ga.; Southern Medical College, Atlanta, 1893; president of the Bulloch County Medical Society; on the staff of the Statesboro Hospital; aged 61; died, June 17, of diabetes mellitus.

John Wesley Simmons, Eastland, Texas; Medical Department University of Tennessee, Nashville, 1901; member of the State Medical Association of Texas; aged 55; died, May 5, in a hospital at Fort Worth.

Alice Irene Outhouse, Madison, Wis.; University of Cincinnati College of Medicine, 1927; aged 27; resident physician at the Massachusetts General Hospital, Boston, where she died, June 21, of meningitis.

James H. Ellington, Sandy Ridge, N. C.; College of Physicians and Surgeons, Baltimore, 1872; member of the Medical Society of the State of North Carolina; aged 79; died in May, of heart disease.

Gustavus A. Scroggs, Los Angeles; Jefferson Medical College of Philadelphia, 1879; member of the California Medical Association; aged 73; died, May 5, of angina pectoris and myocarditis.

Abb C. Oliver, Douglassville, Texas; Medical College of Georgia, Augusta, 1861; Medical Department of the University of Louisiana, New Orleans, 1871; aged 89; died, March 4, of senility.

Jarvis Belcher Woods, Bangor, Maine; Dartmouth Medical School, Hanover, N. H., 1895; member of the Maine Medical Association; formerly state senator and mayor; aged 62; died in June.

Karl Augustus Blum, East Orange, N. J.; Columbia University College of Physicians and Surgeons, New York, 1919; member of the Medical Society of New Jersey; aged 43; died, June 14.

William T. Dodd, Jonesboro, Ga.; Georgia College of Eclectic Medicine and Surgery, 1892; aged 59; died, June 11, in a sanatorium at Atlanta, as the result of an old cerebral hemorrhage.

George Howard Thompson, St. Louis; Missouri Medical College, St. Louis, 1888; Bellevue Hospital Medical College, New York, 1889; aged 62; died, June 9, of cirrhosis of the liver.

Cornelius J. F. R. Phelan, Montreal, Que., Canada; McGill University Faculty of Medicine, Montreal, 1865; aged 88; died, April 8, at the Sacred Heart Hospital, Cartierville.

John Wesley Bolton, Warrensburg Mo.; Ensworth Medical College, St. Joseph, 1894; member of the Missouri State Medical Association; aged 67; died, March 7, of myocarditis.

Edward Stacy Burroughs, Albion, Iowa; Dartmouth Medical School, Hanover, N. H., 1876; aged 84; died, May 21, at St. Joseph's Sanatorium, Dubuque, of cerebral hemorrhage.

Joseph Harvey Wynn, Forest, Ohio; Eclectic Medical Institute, Cincinnati, 1894; aged 72; died, in June, at the Home and Hospital of the City of Findlay, of pernicious anemia.

Judson True Sanborn ✙ Waldoboro, Maine; Medical Department of the University of the City of New York, 1881; aged 77; died, January 9, of cerebral hemorrhage.

William Lowe, Phoenix, Ariz.; Medical Department of the University of the City of New York, 1898; aged 56; died, February 7, of carcinoma of the right kidney.

Charles Douglas Sargent, Norwalk, Conn.; University of Michigan Medical School, Ann Arbor, 1923; aged 32; died, June 23, at St. Luke's Hospital, New York, of glioma of the left temporal and occipital lobes.

James Chester Shafter, San Francisco; Medical Department of Columbia College, New York, 1873; aged 78; died, May 24, at the home of his sister in Inverness.

B. F. Burch, Spokane, Wash.; McGill University Faculty of Medicine, Montreal, Que., Canada, 1866; aged 87; died in May, of arteriosclerosis and bronchopneumonia.

Edwin D. Tucker ✙ Toledo, Ohio; Western Pennsylvania Medical College, Pittsburgh, 1901; aged 53; died, May 23, at the Toledo State Hospital, of arteriosclerosis.

William Houston Wadsworth ✙ Concord, N. C.; Jefferson Medical College of Philadelphia, 1911; past president of the Concord Hospital; aged 39; died, June 5.

John H. Digges ✙ Washington, D. C.; Georgetown University School of Medicine, Washington, 1903; aged 54; died, June 8, of cerebral hemorrhage and nephritis.

Percy Andrew Shurtleff, Blandford, Mass.; College of Physicians and Surgeons, Boston, 1904; aged 53; died, April 2, of cerebral hemorrhage and carcinoma.

Elbert S. Garner, Richland Center, Wis.; College of Physicians and Surgeons, Keokuk, Iowa, 1881; aged 74; died in June, of carcinoma of the stomach.

Henry Allston Pulsford, South Orange, N. J.; Medical Department of Columbia College, New York, 1891; aged 61; died, June 16, of cerebral hemorrhage.

James Turner Brodnac, Youngstown, Ohio; Eclectic Medical Institute, Cincinnati, 1904; aged 52; was found dead in bed, June 13, of organic heart disease.

Peyton Randolph Brown, West Point, Miss.; Vanderbilt University School of Medicine, Nashville, 1886; aged 73; died, June 10, of cerebral hemorrhage.

Frank Earle Browning, Los Angeles; University of Illinois College of Medicine, Chicago, 1913; aged 38; was found dead, May 24, of chloroform poisoning.

Henry Quincy Alexander, Pineville, N. C.; University of Maryland School of Medicine, Baltimore, 1888; aged 65; died, June 11, of angina pectoris.

Jackson Breckinridge Taulbee, Mount Sterling, Ky.; College of Physicians and Surgeons of St. Joseph, 1881; aged 71; died, June 3, of heart disease.

Louis F. Pecot, Baldwin, La.; Medical Department of the Tulane University of Louisiana, New Orleans, 1889; aged 69; died, May 25.

Isaac Andrew Gordon, Waco, Texas; Meharry Medical College, 1913; aged 41; died, February 9, of cerebral hemorrhage.

Byron Defendorf, Chelsea, Mich.; Detroit Homeopathic Medical College, 1874; aged 89; died, June 12, of chronic myocarditis.

Alfred Lewis ✙ Valentine, Neb.; Kansas City (Mo.) Medical College, 1881; aged 70; died in May, in Mesa, Ariz., of myocarditis.

James Fishback Osborne, Trenton, Tenn. (licensed, Tennessee, 1889); Confederate veteran; aged 86; died, June 2, of senility.

Robert McLain Hand, Shubuta, Miss.; Louisville (Ky.) Medical College, 1874; aged 76; died, June 12, of pernicious anemia.

Samuel Brown Casey, Brooklyn; College of Physicians and Surgeons, Chicago, 1887; aged 79; died, June 4, of heart disease.

Myron Howell Adams, Bronxville, N. Y.; Hahnemann Medical College of Philadelphia, 1870; aged 83; died, June 6.

Holley Elmer Clawson, Red Granite, Wis.; Illinois Medical College, 1907; aged 50; died, in June, of malta fever.

Peter McMurchie, Nesbitt, Man., Canada; Detroit College of Medicine and Surgery, 1898; aged 79; died, June 1.

Alfred K. Smith, Chicago (licensed, Illinois, 1887); aged 86; died, June 23, of bronchial asthma and endocarditis.

Giles Lucas, Van Buren, Ark.; College of Physicians and Surgeons, Baltimore, 1887; aged 68; died, May 26.

Orlando S. Clyatt ✙ Lakeland, Fla.; Southern Medical College, Atlanta, Ga., 1891; aged 62; died, June 3.

Roscoe Gould Bazell, Winslow, Ariz.; Medical College of Ohio, Cincinnati, 1901; aged 50; died, April 22.

Otis Cobb, Lovilia, Iowa; Keokuk Medical College, 1891; aged 60; died, June 4, of heart disease.

Queries and Minor Notes

ANONYMOUS COMMUNICATIONS and queries on postal cards will not be noticed. Every letter must contain the writer's name and address, but these will be omitted, on request.

THE STAINING OF TUBERCLE BACILLI (GARDNER'S AND RANSOM'S METHODS)

To the Editor:—Kindly send me the procedure of the method of staining tubercle bacilli as used by Gardner and others in place of the Ziehl-Neelsen method.

C. H. MEYST, M.D., Milwaukee.

To the Editor:—I would greatly appreciate a copy of the technic for staining tubercle bacilli with the safranin stain mentioned in THE JOURNAL.

H. W. RICE, M.D., Morenci, Ariz.

ANSWER.—Since the Ziehl-Neelsen method of staining tubercle bacilli has been in general use, modifications of it have been advocated by numerous authors. The chief criticism of it has been that it does not show the bacilli in all instances; thus, that it is neither wholly reliable nor satisfactory. It has, however, held its own and has remained the standard to the present time. Practically all modifications of it have dealt with the method of decolorizing or with the counterstain. Only recently has any one attempted to displace carbolfuchsin as the bacillary stain. Rappaport and Ellison suggested it in 1928 (*J. Lab. & Clin. Med.* **14**:261 [Dec.] 1928), and now Ransom (*J. Tennessee M. A.* **21**:381 [Feb.] 1929) advocates safranin for general use instead of carbolfuchsin. He finds that it imparts a deeper red to the organism than carbolfuchsin, that it shows more bacilli, and that it stains in less time. He has obtained satisfactory staining in one minute. He says, "There is no material difference in the time of application or in the other steps of the technic." Thus, he decolorizes and counterstains according to the Ziehl-Neelsen technic. He makes the safranin solution by dissolving carefully 100 cc. of distilled water, 10 cc. of tenth-normal or 1 cc. of normal sodium hydroxide and 4 per cent, or 4 Gm., of safranin.

Rappaport and Ellison suggested the use of safranin as a result of searching for a stain that would stain elastic tissue and tubercle bacilli at the same time. They make their solution of basic fuchsin or any basic dye such as orceine or safranin, 2 Gm.; resorcinol, 4 Gm., and water, 100 cc. The solution is boiled for three minutes; then 15 cc. of solution of ferric chloride is added, after which boiling is continued for three minutes more. It is then filtered and allowed to dry on filter paper for about half an hour, after which the sediment on the filter paper is dissolved in 100 cc. of 95 per cent alcohol. It is then boiled for a few minutes and filtered, after which the filtrate is made up to 100 cc. with 95 per cent alcohol, and to this is added 3 cc. of chemically pure hydrochloric acid. The stain is then applied to the dried smear for from three to five minutes, after which decolorizing and counterstaining are done in the usual way. Gardner (*Lancet* **1**:1090 [June 5] 1926) changed only the counterstain of the Ziehl-Neelsen technic. He found yellow to be the safest counterstain, and states that he has nearly always used half saturated trinitrophenol. (The use of trinitrophenol [picric acid] as a counterstain was suggested by Spengler in 1907). Gardner attributes to trinitrophenol "the additional property of restoring the red color to feebly acid-fast tubercle bacilli which would otherwise be invisible or unrecognizable" and adds, "in practiced hands a 1 per cent malachite green solution, further diluted until a few seconds' application gives a very faint green wash to the film, is pleasant to the eye." In 1925, Poiré and Carranza (*Semana méd.* **2**:877 [Oct. 8] 1925) published a paper giving the details of sixty-one different methods for staining tubercle bacilli. They offered an improved method, with a solution of sodium sulphite heated to 80 C. as the decolorizer. Schulte-Tigges had previously advocated sodium sulphite as a decolorizer, using a fresh 10 per cent aqueous solution. In 1926, H. J. Corper published an article on the efficacy of staining tubercle bacilli by thirteen different staining methods (Koch, Ehrlich, Much, Gasis, Herman, Fontes, Konrich, Burke and Dunning, Serkowski and Biot). He concluded "that when the technic is properly performed the majority of these methods may result in staining the tubercle bacilli . . . with equal efficiency. There was, however, a decided difference in the ease of performance, speed and simplicity of the various individual methods. . . . For practical purposes the simple steaming carbolfuchsin (Ziehl-Neelsen) method for staining tubercle bacilli, or one of its modifications, is recommended to the clinical pathologist."

Ransom's article presents a study on fifty smears and shows a higher number of bacilli found by his method than by the Ziehl-Neelsen technic.

In analysis of the methods that have been recommended, it is well to divide them into the staining of the bacillus and the method of destaining or decolorizing. Counterstaining is more or less a passive procedure in the method. In the matter of staining, it is well to remember that we are not fully conversant with the detailed physicochemical mechanism concerned; but this much can be said with fair certitude: there are many basic (bacillary) stains which will stain the tubercle bacillus as they will many other bacilli, and that the principal property which the tubercle bacillus possesses and which we take advantage of practically is the difficulty of penetration resulting from its high lipin and fat content. This point was well brought out even by Koch in his original studies in which he stained the tubercle bacillus with a faintly alkaline solution of methylene blue (methylthionine chloride-U. S. P.) and later relegated the problem to his pupil Ehrlich, who found that many basic dyes would stain the bacilli and as a result of his studies used aniline water as a mordanting agent to aid penetration. Since then phenol (carbolic acid), mercuric chloride, ferric chloride, and many others have been advocated, all, however, to the same purpose. The disadvantage to the use of aniline water was its chemical instability, which has subsequently given phenol the preference. The criticism of chemical instability also applies to many other agents recommended for combination with the basic stain. The question of the choice of the basic stain resolves itself into a choice of color principally, and this also applies to a certain extent to the counterstain preferred by individual students. It is a good custom to question students for red color blindness (especially as concerns their ability to see fuchsin-stained tubercle bacilli). In some instances as high as 10 per cent are unable to use this stain satisfactorily. It is thus readily seen how variable figures may be obtained in comparative studies, not to mention the variations resulting from slight technical deviations, which may also yield a slight percentage increase by one method or the other, depending possibly on idiosyncrasies. The preference for one stain or the other and the variable results obtained may be due to idiosyncrasies such as have been pointed out. To fuchsin color blind students the use of carbol crystal violet or some other standard basic bacillary stain as may meet their fancy may be recommended. It is well to remember that figures obtained on sputums or urines alone in working out new methods or making comparative studies vary in consecutive smears made from the same sample. Dr. H. J. Corper says: "In our laboratory both in our investigative (research department) and practical (clinical pathologic) work we depend on the carbolfuchsin technic (Ziehl-Neelsen), with modifications in the basic stain used dependent on idiosyncrasy of the individual worker. We have found this method both as reliable as any ever recommended and just as time saving; with sputum a few minutes' steaming is ample, while with tissue sections we have found ten to twenty minutes' steaming is required for penetration of the dye into the tubercle bacilli."

ENLARGEMENT OF THE THYMUS

To the Editor:—Mrs. B., aged 20, gave birth to a child and everything was apparently normal. The child at 2 weeks of age had a violent collapse and turned blue. Several hours after this I found the child in a good condition but suggested roentgen examination of the thymus. The roentgenogram showed an enlarged thymus and no more collapse in this case. A second baby was born without any trouble and appeared normal in every respect but did not breathe well. I put it on stimulation with the head low and kept it warm. When twenty-four hours of age it died suddenly. I think that both infants had an enlarged thymus gland. The mother is now six months pregnant. Can you advise any treatment that may prevent a third case of enlarged thymus? Both parents are well.

M.D., Michigan.

ANSWER.—During the past twenty-five years a considerable literature on the thymus has accumulated. In spite of this, its function is not clear. Since the advent of the roentgen ray the demonstration of thymic enlargement has been facilitated and it is now regarded as a not uncommon condition of infancy. There is no known prevention of thymic enlargement.

In circumstances such as those presented in this inquiry, a roentgen examination of the infant should be made as soon after birth as possible. If there is evidence of enlargement, a treatment dose of roentgen ray should be given at once. This should be repeated according to the observations and course, in from one to two days if symptoms are urgent; if not so urgent, within a week. One treatment may be sufficient. More often two or three exposures at weekly intervals are required. Much depends on the dosage. We know of no preventive measures that will prevent enlargement of the thymus in the infant before birth.

Medical Education, Registration and Hospital Service

COMING EXAMINATIONS

ALASKA: Juneau, Sept. 3, 1929. Sec., Dr. Harry C. Devighne, Juneau, Alaska.

PORTO RICO: San Juan, Sept. 3, 1929. Sec., Dr. D. Biascoechea, Box 804, San Juan, Porto Rico.

Kansas February Examination

Dr. Albert S. Ross, secretary, Board of Medical Registration and Examination for Kansas, reports the written examination held at Topeka, Feb. 12-14, 1929. The examination covered 10 subjects and included 100 questions. An average of 75 per cent was required to pass. Ten candidates were examined, all of whom passed. Five candidates were licensed by reciprocity. The following colleges were represented:

PASSED College	Year Grad.	Per Cent
Indiana University School of Medicine	(1925)	94.1
Kansas Medical College, Topeka	(1902)	87.3
Tufts College Medical School, Boston	(1927)	89.5
Washington University School of Medicine	(1928)	90.2
University of Nebraska College of Medicine (1929) 87.7, 89.4, 89.9	(1928)	90.8,
University of Wisconsin Medical School	(1928)	89
Charles University of Prague, Czechoslovakia	(1927)	92.5

LICENSED BY RECIPROCITY College	Year Grad.	Reciprocity with
Sioux City College of Medicine	(1902)	Iowa
University of Louisville School of Medicine	(1926)	Kentucky
University of Minnesota Medical School	(1927)	Wisconsin
St. Louis University School of Medicine	(1927)	Missouri
Meharry Medical College	(1927)	Tennessee

California February Examination

Dr. Charles B. Pinkham, secretary of the Board of Medical Examiners for California, reports the written examination held at Los Angeles, Feb. 4-7, 1929. The examination covered 9 subjects and included 90 questions. An average of 75 per cent was required to pass. Fifty-three candidates were examined, 52 of whom passed and 1 failed. Six physicians were licensed on army and navy credentials. The following colleges were represented:

PASSED College	Year Grad.	Per Cent
University of Arkansas School of Medicine	(1927)	77.3
College of Medical Evangelists	(1927) 84.7, (1928)	82.2, 83.2
Stanford University School of Medicine	(1928)	85.6, 86.1
University of California Medical School	(1928)	80.9
University of Colorado School of Medicine	(1928)	87.7, 90
Loyola University School of Medicine	(1928)	86.7
Northwestern University Medical School (1928) 80.3	(1921) 78.6, (1927)	81.8,
Rush Medical College	(1927) 76.1, (1928)	84.9, 86.2
Hahnemann Medical College and Hospital	(1917)	75.4
University of Illinois College of Medicine	(1928) 80.4,	80.9, 87.6
Indiana University School of Medicine	(1924)	78.3
State University of Iowa College of Medicine	(1928)	77.9
University of Louisville School of Medicine	(1928)	81
Tulane University of Louisiana School of Medicine	(1925)	84.1
Harvard University Medical School	(1926) 83.1, (1928)	81.1
Tufts College Medical School, Boston	(1927)	78.7
University of Michigan Medical School	(1928)	82.2
University of Minnesota Medical School	(1928)	84.7
St. Louis College of Physicians and Surgeons	(1923)	76.4
St. Louis University School of Medicine	(1928)	77.7, 85.3
Washington University School of Medicine	(1928)	82.9
Creighton University School of Medicine	(1928)	86.9
University of Nebraska College of Medicine	(1928)	81.3
Western Reserve University School of Medicine	(1928)	81
University of Oregon Medical School	(1927) 82.7, (1928)	76.3, 77
University of Pittsburgh School of Medicine	(1927)	79.8
University of Vermont College of Medicine	(1928)	81
University of Wisconsin Medical School	(1928)	79.2, 86.3
Trinity Medical College, Toronto	(1904)	81.4
University of Toronto Faculty of Medicine	(1928)	81.9
McGill University Faculty of Medicine, Montreal	(1928)	83.8
University of Rome, Italy	(1914)	79.2
University of Gottingen, Germany	(1922)*	83.9
National School of Medicine, Mexico	(1914)* 85.7, (1918)*	76.4
School of Medicine and Pharmacy of Jalisco	(1917)	81.6
University of Tomsk, Siberia, Russia	(1911)*	85.3

FAILED College	Year Grad.	Endorsement with
School of Medicine and Pharmacy of Jalisco	(1922)	63.7

ENDORSEMENT OF CREDENTIALS College	Year Grad.	Endorsement with
Northwestern University Medical School	(1928)	U.S.P.H.S.
Rush Medical College	(1883)	U. S. Army, (1927) U. S. Navy
Creighton University School of Medicine	(1926)	U.S.P.H.S.
University of Nebraska College of Medicine	(1927)	U.S.P.H.S.
University of Pennsylvania School of Medicine	(1895)	U. S. Navy

* Verification of graduation in process.

Book Notices

METHODS AND PROBLEMS OF MEDICAL EDUCATION. (Eleventh Series.) Paper. Gratis. Pp. 263, with illustrations. New York: Rockefeller Foundation, 1928.

This report deals mainly with clinical medicine in the United States and Europe, with two articles on pediatrics. There are twenty-two articles by authors in the field of medicine who are connected with the leading universities in the United States and other countries. Building and floor plans of various clinics and hospitals are given, with other illustrations showing their equipment. The report gives an excellent comparative idea of the clinics of the various universities represented and should be of much value to officers of medical schools who are interested in clinical problems.

TREATMENT OF VARICOSE VEINS BY INTRAVENOUS INJECTIONS. By J. D. P. McLatchie, M.D., C.M., Physician Western Skin Hospital. Cloth. Price, $1.60. Pp. 51, with illustrations. New York: Macmillan Company, 1929.

This handy monograph presents the essentials of this method of treatment concisely. In a review of the history, Sicard is chiefly credited with the success and popularity of the method. Technic is given in detail, and the preparations used are considered as to efficacy, advantages and disadvantages. The author states that sodium salicylate is probably the most satisfactory of all the substances used but that some physicians consider the quinine compounds to be just as useful. The general advantages of the method are mentioned briefly. Continental authors are chiefly mentioned in the subject matter, but the monograph ends with an extensive bibliography.

FOODS OF THE FOREIGN-BORN IN RELATION TO HEALTH. By Bertha M. Wood, Consulting Dietitian Food Clinic, Boston Dispensary. With a Foreword by Michael M. Davis, Jr. Second edition. Cloth. Price, $1.25. Pp. 110. Boston: M. Barrows & Company, 1929.

This little volume is both interesting and valuable. It is interesting mainly because the writer's interest in her subject has imbued her with an enthusiasm that has resulted in fascinating short descriptive stories of the various peoples of her book. It is valuable because it is an understanding effort to evaluate diet in terms of the persons to be dieted. In order to feed foreign born Americans correctly, the dietitian must know what their normal food is and must modify the dictates of science by the application of such knowledge. This book is a great help for just that purpose.

PHARMACOTHERAPEUTICS, MATERIA MEDICA AND DRUG ACTION. By Solomon Solis-Cohen, M.D., and Thomas Stotesbury Githens, M.D. Cloth. Price, $15. Pp. 2009. New York: D. Appleton & Company, 1928.

The authors have endeavored to set forth what is known of drug action — pharmacodynamics — as ascertained by exact methods of study, and to emphasize the uses of drugs that may be based thereon, also to call attention to empiric measures not based on known pharmacodynamic data but possessing reasonable evidence of usefulness. The drugs have been classified according to their chief uses, a clinical classification, having in view the need of practice, but always with due regard to chemistry and pharmacodynamics.

This interesting work is divided into six chapters. The first, which treats of the object and scope of the subject, including definitions, occupies approximately a score of pages. The second chapter discusses disease-recovery, embracing disease forms, the borderline conditions and the process of protection, defense and correction. Disease is defined as "the struggle for health, a state of strife between the organism and the disorganizing factors." The third chapter deals with indications and contraindications, the principles of treatment, and prognostic, etiologic, pathologic and symptomatic indications. The fourth chapter, concerned with drug influence, gives a general survey of the physicochemical facts bearing on the solubility and osmotic pressure, surface tension, electrolytic dissociation and the general effects on the cells resulting from the dynamic contact of drugs embracing colloids, enzymes and catalysis, including the various factors involved in their administration. The fifth chapter covers the sources and forms of drugs, pharmaceutic operations, including a general description of the methods of chemical and biologic assay and subsequent standardization, therapeutic use, the various methods of administration and dosage, incompatibilities, and a brief section on the prescription.

The sixth chapter comprises a rather novel classification of remedial agents, especially with regard to the nomenclature employed; namely, order 1, antipathogens, which deals with the remedies used against the causes of disease, including the antiparasitic and antiseptic agents; order 2, designated as tissue alterants, including drugs employed chiefly for their topical effect; order 3, all sorts of drugs which are described as function modifiers. This section covers approximately half of the book, embracing the drugs acting on the alimentary system, the blood and blood-producing organs, the cardiovascular system, and those affecting the respiration, metabolism, body temperature, urinary organs, skin and appendages, reproductive organs and the nerve system. The latter section is comprehensive and the general classification as a whole appears to be of little importance. The appendix contains a brief discussion on chemical and pharmaceutic incompatibilities, treatment of poisoning, the usual tables of weights and measures, Latin terms and abbreviations, and a copy of the Harrison Narcotic Law, followed by a good comprehensive index. Unfortunately, bibliographic references are not given, although credit is given to the articles from which the authors drew material.

The descriptions of the therapeutic properties of drugs are interesting, particularly the authors' references to medical literature. In many instances chemical structural formulas are given, which in several cases are incorrect. Much stress is placed on the chemotherapeutic properties of antimony, arsenic, bismuth, lead and a number of the rarer heavy metals. It is interesting to note the authors' discussion of pharmacy in relation to therapeutics, which, according to them, has been sorely neglected by the medical profession. The authors are to be commended since the material is on the whole sound. If there is any one adverse criticism to be made it is against the obvious therapeutic optimism and the willingness of the authors to accept with little critical judgment claims for many therapeutic procedures that are not well established. In view of prevalent therapeutic nihilism, this may be an asset. The book can be recommended not only as a textbook but also as a valuable reference work for the practicing physician.

CLINICAL ELECTROCARDIOGRAMS: THEIR INTERPRETATION AND SIGNIFICANCE. By Frederick A. Willius, B.S., M.D., M.S., in Medicine. Section on Cardiology, the Mayo Clinic. Mayo Clinic Monographs. Cloth. Price, $8. Pp. 219, with 368 illustrations. Philadelphia: W. B. Saunders Company, 1929.

This book is distinctly clinical, as the author states. Its value lies in the large collection of clearly printed electrocardiograms. A study of these figures with their explanatory legends will give the student a rich experience in the understanding of many of the commoner diseases of the heart. The discussion in the text of the various abnormalities, while meager and elementary, is clear and sane. A fairly complete bibliography is appended to each chapter. One is pleased to note that Willius, while emphasizing the importance of the electrocardiogram in clinical medicine, regards it as an adjunct only. The diagnosis must depend on the history and physical examination as well as on the instrument. In addition to the cardiac arrhythmias, the subjects covered include ventricular tachycardia, individual wave changes, congenital dextrocardia, thrombosis of the coronary arteries, and the dying heart.

ANIMAL PARASITOLOGY: With Special Reference to Man and Domesticated Animals. By Robert Hegner, Ph.D., Professor of Protozoology, the Johns Hopkins University, Francis M. Root, Ph.D., Associate Professor of Medical Entomology, the Johns Hopkins University, and Donald L. Augustine, Sc.D., Assistant Professor of Helminthology, Harvard University. The Century Biological Series. Edited by Robert Hegner. Cloth. Price, $6.50. Pp. 731, with 280 illustrations. New York: Century Company, 1929.

This may really be counted as an assemblage of three books, since the separate sections have been prepared independently by the three authors. One notices a distinct difference in style even though individual authors have profited by the advice of their associates. Whatever disadvantage there may be in this is undoubtedly made up for by the advantage of thorough

mastery over the particular field treated. The subject of animal parasitology has developed so rapidly since the beginning of the present century that no author could write with equal effectiveness on the three subjects included in this work. Furthermore, each of these subjects has been extended so greatly within that time that the attempt to cover the important literature has not been successful in some other cases. The present work is thoroughly down to date and handles in broad fashion not merely the taxonomic and morphologic data which have been acquired during the recent years but also the more complex investigations on life cycles and biologic relations. The introductory chapter deals with the general topic of parasitism in animals. The first section covers protozoology. Both of these were written by Hegner. The second section, on helminthology, by Augustine, and the third section, on medical entomology, by Root, are followed by an extensive bibliography on the different groups and a good index. The book is abundantly illustrated, but one is struck by an unfortunate lack of balance in the figures. Some are crudely drawn. Others appear obscure in the reproduction. The different styles employed impart a somewhat unsatisfactory appearance to the work as a whole. On the other hand, one should certainly commend the wealth of illustrations and the quality of most of the figures. The text is attractively written and clearly printed. Careful check of a number of pages shows that the book is free from the usual number of textual errors. The work will undoubtedly commend itself both to teachers and to students and will be a valuable manual of information.

ETUDE ÉLÉMENTAIRE DES ARYTHMIES: Lecture des électrogrammes, phono et cinématographie. Par R. Lutembacher. Paper. Price, 30 francs. Pp. 110, with 78 illustrations. Paris: Masson & Cie, 1929.

In the earlier chapters, Lutembacher discusses several novel instrumental aids to the study of the heart. He describes the phonographic registration of the heart tones and their transmission to a distance, where they are heard through many stethoscopes (pluri- et télé-auscultation); also the graphic registration of heart tones as well as cinematographic representation of coarse and minute movements connected with the heart. There is a brief but clear presentation of the salient features of the various arrhythmias with illustrative electrocardiograms and phlebograms. The book is well printed on fine heavy paper and the illustrations are beautiful and clear. Especially worthy of praise are those showing the normal and the pathologic heart, in which the different structures stand out with remarkable distinctness. The volume is informing in character but it is perhaps better to class it as stimulating and as inciting one to further investigation.

PROTOZOOLOGY: A MANUAL FOR MEDICAL MEN. By John Gordon Thomson, M.A., M.B., Ch.B., Director, Department of Protozoology, London School of Hygiene and Tropical Medicine, and Andrew Robertson, M.B., Ch.B., Lecturer and Milner Research Fellow in the Department of Protozoology, London School of Hygiene and Tropical Medicine. Cloth. Price, $11. Pp. 376, with 220 illustrations. New York: William Wood & Company, 1929.

This is planned to meet the needs of medical men who desire a special course in protozoology but have only brief time. The authors refuse to follow the zoological arrangement and after a brief introduction plunge into malaria, which in various subsections covers a sixth of the book. Then coccidiosis, piroplasmosis, the hemogregarines and the gregarines occupy about the same space. After these come amebas, flagellates, including chiefly *Leishmania* and *Trypanosoma*, ciliata, sarcocysts, spirochetes with *Treponema* and *Leptospira*, and numerous other forms incidentally treated. Each teacher will have, of course, his own way of treating a subject, but it is difficult to see how students can handle the extensive discussions in some chapters without more general knowledge than is given them here. One also wonders why it is advantageous to follow the sequence employed, which has been frankly chosen by the authors with intent to disregard zoological relationships; i. e., likenesses which are often of great value pedagogically in attacking a field. The authors set out to produce a practical work and eliminate much of real importance even from a narrow clinical view and yet print, for examples, three pages of lists of flagellates in other hosts than man, lists that even a skilled protozoologist would have trouble to use in their highly condensed form. The illustrations are numerous and varied in quality. Colored plates of delicate, beautiful and accurate representations of microscopic details are followed by coarse figures, crude in execution and grossly exaggerated in size. This lack of balance, which is evident at other points also, is an unfortunate blemish in a work that contains much to be commended as both valuable and unusual. The sections on fallacies and puzzles in blood examination, on common objects in stools other than protozoa, and on technic meet real needs that are not adequately recognized in other works. Finally, the student will be greatly aided by the discussion of various intracellular bodies, spirochetes and related organisms, which are usually omitted in whole or in part from works on protozoology.

Miscellany

INTEMPERATE LAW-MAKING *

In his guarded and moderate address to the House of Delegates of the American Medical Association, Dr. William Sydney Thayer, its president, spoke of "intemperate" federal laws, of attempts "to legislate for the whole country as to what we may or may not eat or drink." Such interferences with local and personal rights constitute a "tyranny" that will not long be endured. Such laws defeat their own purposes and cannot be enforced. Though Dr. Thayer mentioned other varieties of arbitrary proscription and with studied courtesy avoided particular reference, the delegates knew what was in his mind. The Volstead act is the perfect model of a liberty-denying statute.

Made to the order of the Anti-Saloon League, perhaps its worst excess is its limitation of the power of physicians to prescribe according to their own knowledge and judgment of the necessities of the case. "It is better that the patient die," said old Dr. Congress, in effect, "than that his miserable life be saved by larger or more frequent doses of 'the intoxicating cup' than I, in my medical wisdom, have ordained." To a physician whose belief in the therapeutic effect of alcohol in given conditions has not been derived from the textbooks of propaganda sedulously disseminated for years by the crusaders of prohibition, this paternal regulation of medical practice must seem unendurable.

Physicians of great eminence have vainly tried to have this part of the law set aside. Prohibition is sacred. Human life is cheap. One would suppose that, whether Wet or Dry, a physician conscious of the responsibilities of his profession would object to the setting-up in Congress of a college of physicians and surgeons. We don't know whether Dr. Thayer, so long a distinguished figure in the world of medicine, is Dry or Wet. He spoke for liberty and tolerance in general, but the thought of the liberty which Congress has been pleased to deny to doctors was in the thought of the delegates, "most of whom rose and applauded vigorously."

A characteristic piece of fiction, composed by a well known figure of the great moral lobby at Washington, in disparagement of Dr. Thayer, led to the adoption by the delegates of a report especially commending "the sentiments expressed by President Thayer concerning legislative enactments that are inimical to the best interests of the medical profession and the public by restricting medical men as to what shall and what shall not be prescribed for the relief of human ills." The House of Delegates kept its dignity and temper. It approved also that temperate judgment and statement which becomes men of science.

Thus federal tampering with the freedom of science is not to provoke men of science into heat and passion. Intolerance, Dr. Thayer had finely said, "is the most fatal enemy of liberty." Fortunately, there are forms of liberty which cannot be taken away by act of Congress. We may assume that there are plenty of physicians who prefer the health of their patients to full obedience to the Volstead law. Here is another highly respectable class of "law-breakers," enforced violators of a law more honored in the breach than the observance.

* Editorial from the New York Times, July 11, 1929.

Medicolegal

Exhibition of Patient to Appellate Court

(Carraway v. Graham (Ala.), 118 So. 807)

A physician treated Graham for an injury to his hip. In the trial court, Graham obtained a judgment against the physician, based on alleged malpractice. The physician appealed to the supreme court of Alabama, which reversed the judgment and remanded the case.

The plaintiff, a school boy, received a blow or kick while playing football. After treatment by physicians where he lived, he went on their advice to a hospital in Birmingham. He was critically ill when he arrived, but he was examined "from head to foot" and tests were made of the urine and of the blood. The urine was normal, but the blood showed a high leukocyte count. A surgeon performed an operation without waiting for roentgenograms to be taken, because he thought that there was no time for taking them. The day following the operation, however, roentgenograms were taken and did not show any pathologic condition. At the operation, an incision was made on the left side just above the symphysis pubis, where the physician found some tension and the greatest pain. His best judgment was that an abscess had formed at that point, caused by a ruptured appendix. No abscess was found and the wound was closed. Then, through a median opening below the navel, the physician explored the abdominal cavity. The abdominal organs, including the appendix, were normal. There was "a hard thickening or swelling of the peritoneal wall of the abdominal cavity just inside the upper point of the hip bone, toward the rear, which had not yet come to a head," and to drain that area through the back, rather than through the abdominal cavity, the physician made a third incision so as to introduce a drain under the left kidney. Five or six days after the operation an obstruction of the bowels developed, another median incision was made, and the obstruction was relieved. At the end of another week or two, however, a swelling appeared above and inside the left hip bone. After some days, this was opened; 3 or 4 ounces of pus drained out and with it some small slivers of bone, which evidently came from the hip bone. The plaintiff then began to recover and at the time of his trial had recovered his previous weight and returned to his studies.

The complaint of alleged malpractice was based in part on the failure of the physician to make a roentgen examination before the first operation. This omission the defendant explained and undertook to justify on the ground of the critical condition of the patient and the urgency of the situation. He contended, too, and in this the other medical witnesses agreed with him, that a roentgen examination at that time would not have shown anything helpful. The complaint of alleged malpractice was made also because of the incision on the left side just above the symphisis pubis to drain an abscess attributed by the physician to a ruptured appendix. The plaintiff thought that this was evidence of incompetence. The experts who testified in the case, however, did not so depose, and a medical work admitted in evidence spoke of such abscesses on the left side. The plaintiff complained further that the obstruction of the bowel was caused by rough handling of the intestines during the exploratory operation, but the evidence showed that such obstruction may follow handling or may result from inflammatory conditions and that there is always a chance of its occurrence.

In the trial court, the patient was exhibited to the jury. An offer was made to the supreme court to exhibit him and the several scars left by treatment for consideration in connection with the appeal, but the court declined to make the proposed inspection. Of this refusal the appellee complained, alleging that in the absence of such an exhibit the appellate court did not have before it the whole case as it appeared in the trial court. To this contention, however, the court replied that it had before it "all the evidence, in the course of which plaintiff's wounds were time and again carefully described, and it may be assumed that they left commensurate scars." These scars, however, were of importance only in the admeasurement of damages. The proposed exhibition, if permissible in any case on appeal, which may be seriously denied, would not have contributed anything to an understanding of the question involved.

This case was, in a peculiar sense, one to be decided on the basis of the expert testimony rather than by the testimony of the plaintiff. No medical witness imputed negligence to the defendant, and the great weight of the expert testimony was with him. The court below should have granted the defendant's motion for a new trial.

"Confinement Within House" Construed

(Garvin v. Union Mut. Casualty Co. (Iowa), 222 N. W. 25)

Garvin was insured by the Union Mutual Casualty Company under a health insurance policy. The policy provided for the payment of benefits at one rate when the insured was "strictly and continuously confined within the house" and at another when, "immediately following said confinement, or by reason of non-confining sickness," he was wholly and continuously disabled. Garvin was ill, and controversy arose as to the extent to which benefits were payable at the rate specified for "confinement within the house." Suit by Garvin resulted in the verdict in his favor, which, on appeal by the insurer, the supreme court of Iowa reversed.

Garvin's illness began in January, 1926. In the following May or June, a physician found that he had spinal arthritis. At the trial, the insurer, on the basis of the evidence, sought by timely motion to limit the jury to the consideration of the extent of its liability under the house confinement clause between January 16 and March 26, 1926, but the court allowed it to consider its liability under that clause during the entire period of illness, from Jan. 16, 1926, to May 16, 1927. The jury returned a verdict requiring payment on the basis of house confinement during the entire time. Within this period, between intervals of confinement to bed and after such confinement ended, Garvin had traveled at various times between Fort Dodge, Des Moines, Dwight, Ill., Kansas City, Excelsior Springs and Chicago, and had gone about 4,000 miles by automobile, sometimes driving it himself. Sometimes his travels were in search of medical advice and treatment. Sometimes, however, they were merely a part of an effort to follow the regimen advised by his physicians to live in the open; and to that end, too, Garvin at other times and in other ways left the house in which he lived. The case turned on the meaning of the words, "strictly and continuously confined within the house." The supreme court found that the decisions of the various courts that had construed similar phraseology could not be reconciled. But, said the court:

> "Strictly and continuously confined within the house," in its most literal interpretation, would require that the insured stay constantly within the four walls of the house. Such an interpretation would prevent recovery if an emergency, such as a fire, should arise, and the insured be removed from the house. It would preclude recovery in the event of transportation in an ambulance to a hospital, even for emergency treatment. It would bar recovery if the insured sat upon an uninclosed porch of the house, or slept upon a sleeping porch that was not "inclosed within the house." Such narrow and limited construction should not be adopted in the interpretation of contracts of this character.

Therefore the court was of the opinion that the insured did not lose his right to the payment of benefits under the house confinement clause during the time he was absent from his home for consultation with a physician in the town in which he lived. The contract, the court said, when liberally construed, would cover also such contingencies as confinement in hospitals; the contract does not provide that the house must be his home, and if the insured were confined within a hospital it would be "within the house" within the meaning of the policy. The supreme court held, however, that the trial court should have instructed the jury that under the undisputed evidence Garvin was not entitled to benefits under the house confinement clause after March 26, 1926, which marked the end of Garvin's absences from the house in the course of his travels to consult physicians and his hospital confinement, for it would be doing violence to the contract to hold that the insured was within the house confinement clause when he was going about the premises, taking automobile rides, and going apparently where inclination directed.

Society Proceedings

COMING MEETINGS

American Electrotherapeutic Association, Indianapolis, September 9-13. Dr. C. E. Vinton, Guildersleeve Ave., Rosedale, New York, Secretary.
American Pharmacological Society, Boston, August 19-23. Dr. E. D Brown, University of Minnesota Medical School, Minneapolis, Secretary
American Physiological Society, Boston, August 19-21. Dr. W. J. Meek, University of Wisconsin Medical School, Madison, Secretary.
American Society for Experimental Pathology, Boston, August 19-23. Dr. Carl V. Weller, 1020 Ferdon Road, Ann Arbor, Mich., Secretary.
American Society of Biological Chemistry, Boston, August 19-23. Dr. D. W. Wilson, University of Pennsylvania Medical School, Philadelphia, Secretary.
Colorado State Medical Society, Greeley, September 3-5. Dr. F. B. Stephenson, Metropolitan Building, Denver, Secretary.
Federation of American Societies for Experimental Biology, Boston, August 19-23. Dr. Carl V. Weller, 1020 Ferdon Road, Ann Arbor, Mich., Secretary.
State Medical Society of Wisconsin, Madison, September 10-13. Mr. J. G. Crownhart, 119 E. Washington Ave., Madison, Executive Sec'y.
Washington State Medical Association, Yakima, September 3-5. Dr. Curtis H. Thomson, 1305 Fourth Avenue, Seattle, Secretary.

MISSOURI STATE MEDICAL ASSOCIATION

Seventy-Second Annual Meeting, held at Springfield, May 13-16, 1929

The President, DR. FRANK I. RIDGE, Kansas City, in the Chair

Sequelae of Epidemic Encephalitis

DR. G. WILSE ROBINSON, Kansas City: Many of the residual disabilities secondary to encephalitis are symptoms of chronic encephalitis rather than sequelae. They are due to a disorder of muscle tone, mental and physical depression, mental deterioration, mental and moral defects (especially in children) and endocrine disorders. Residual paralyses are not unusual; muscle rigidity is a most common symptom; decreased muscle tone and myoclonia are often seen. Death of a patient with parkinsonism from bulbar palsy is evidence of a persistence of the infection and extension of lesions.

Malta Fever

DR. F. C. HELWIG, Kansas City: Malta or undulant fever is quite prevalent. I have seen fourteen cases in the past year, outnumbering the cases of typhoid. Infection is doubtless due to the bacillus of Bang and not to the bacillus that is responsible for Malta fever, which, in my opinion, is very rare in America. Statistics show a high percentage of dairy herds to be infected with the Bang organism. Apparently only cows that are going dry excrete sufficiently large quantities of bacteria in the milk to produce human infection.

What the General Practitioner Should Know and Do About the Psychoneuroses

DR. PETER BASSOE, Chicago: The terms used for the psychoneuroses—such as hysteria, neurasthenia, psychasthenia, anxiety neurosis, compulsion neurosis—do not stand for diseases but for reaction types. They are descriptive of the various ways people act when in trouble. The reaction type—in other words, the clinical picture—may be the same whether the trouble is financial worry, unhappy marriage, real or fancied physical disease, injury in peace or war or thwarted ambition. It depends less on the exciting cause, the trouble confronting the patient, than on the makeup of his personality. I recognize the helpfulness of the conception of hysteria as the expression of suggestibility and of anxiety or fear neurosis, but prefer to drop the term neurasthenia. Of great importance are the emotional factors, the fears and suggestibility in organic diseases of all kinds. Patients with organic disease often are made more miserable by the superadded fears and neurotic manifestations than by the original disease. It is difficult to distinguish between pure psychoneuroses, real psychoses, organic diseases, and combinations betweeen psychoneuroses and organic diseases. The essential feature of the psychoneuroses being a mental reaction, the key both to causation and to cure is in the mental state of the individual patient. One should make a painstaking, unprejudiced survey of the whole life history of the individual patient, and an inventory of his mental and physical assets and liabilities. In the great majority of cases the general practitioner should succeed as well as the specialist. He often has the advantage of personal knowledge of the patient, his family, surroundings and problems. Industry, patience, kindness and tact are so important that if brought to bear they far outweigh deficiency in technical knowledge and in mastery of terminology. The great frequency of the psychoneuroses and the large proportion of the totality of human unhappiness caused by them call loudly for preventive measures. All medical practitioners in city or village, in general or special practice, should take part in the mental hygiene movement. Cooperation with teachers and parents is of particular importance, as there is good reason to believe that faulty mental habit formation in early life is the greatest factor—greater even than heredity—in the failure to develop that kind of mental sturdiness which protects the person against giving way to credulity and fear later in life.

Some Medicosocial Aspects with Special Reference to Dependency

DR. CHARLES W. THIERRY, St. Louis: In various parts of the country there are movements to provide medical care for those who can pay only in part for the service rendered. Organization, group method, lowered pro rata overhead and endowments are factors variously applied in an attempt to bring medical care within the reach of those who have no desire to be pauperized. Serious attention and thought by the leaders of organized medicine is now being given to this subject. The solution is still in the process of formation. It clearly is not a problem for the individual physician. He must put his personality in his organization. His organization must work out difficulties, keeping in mind fundamental organizational objectives. This does not call for a desertion of the standards of the past but it does imply a change of method.

Analgesia and Anesthesia in Obstetrics Other Than by Morphine-Scopolamine or the Gwathmey Technic

DR. J. M. SINGLETON, Kansas City, Mo.: According to all experimental and clinical evidence the use of chloroform is dangerous. Ether is the standard anesthetic and probably the most satisfactory for general and home use. In the form of rectal instillation it is probably one of the safest and most satisfactory methods of analgesia. Nitrous-oxide-oxygen has taken high rank as an analgesic during the second stage because of its rapid action and ease of control and its lesser toxicity. Ethylene is even less toxic than nitrous-oxide-oxygen but has the added factor of expense in the required equipment. More recent work with the barbituric acid group is promising much.

Postpartum and Postnatal Care

DR. J. D. JAMES, Springfield, Mo.: Postpartum care depends to some extent on the physical condition of the patient and to a greater extent on the prenatal care and care during delivery. Care during delivery to prevent exhaustion, hemorrhage and infection, with proper rest, aseptic and antiseptic measures, and afterward with well regulated physical exercises and strict follow-up examinations and treatment, will help restore the patient to proper physical condition. The care of the new-born begins with severance of the cord and its care. Efforts at resuscitation should be mild. The treatment of possible birth injuries should be instituted early. Proper prenatal and postnatal care of the mother's breasts, a regular feeding schedule and proper hospital and nursery surroundings are all valuable aids in the conduct of postpartum and postnatal care.

Uterine Curettage

DR. D. A. ROBNETT, Columbia, Mo.: Uterine curettage is not a major operation, but it is one that requires a technical skill and thoroughness equal to that of any operation, and should not be turned over to a novice. My experience in receiving specimens obtained by uterine curettement from all parts of the state for histologic examination convinces me that the profession is not familiar with the technic and importance of curettage as a diagnostic and therapeutic measure.

Management of Difficult Head Presentation

DR. W. L. CLAPPER, St. Louis: The true prophylaxis in gynecology is the judicious application of obstetrics. The best results are obtained by spontaneous delivery. When nature cannot bring about the desired results, it is not advisable to wait until the mother is exhausted before giving assistance.

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There are four established principles for applying forceps which should be ignored only in rare cases when the patient is in great danger: (1) the cervix should be fully dilated; (2) the bag of waters should be ruptured; (3) the head should be in the pelvis, and (4) the child should be of a size to pass through the pelvis. The same principles apply to podalic version, except that the bag of waters should be intact or just ruptured. In all cases of instrumental delivery and version, the patient should be anesthetized and catheterized and the diagnosis verified by a thorough vaginal examination, the whole hand being used if necessary and the position of saggital suture and the occiput located.

Roentgenographic Diagnosis of Abdominal Tumors

DR. L. G. MCCUTCHEN, St. Louis: By the administration of barium by mouth, or enema, enlargement of the neighboring organs, as well as new growths, may be recognized by the displacement of portions of the barium filled gastro-intestinal tract. That is, pressure defects may be seen in a barium filled stomach or intestine which are caused by the enlargement of an abnormal neighboring organ. This "displacement method" of diagnosis is comparable with that of pneumoperitoneum but is much simpler and is without risk. In order to draw a correct conclusion regarding the condition of a particular structure, it is necessary that one become familiar with the relationship of each organ in the lateral as well as the anteroposterior view.

Influence of Etiology on Prognosis of Heart Disease

DR. O. P. J. FALK, St. Louis: Heart disease tops the list of the causes of death in the United States. This fact is materially influenced by preventive medicine and modern therapeutic advance, which increase the life expectancy, thus enabling more people to attain the age at which degenerative cardiac disease has such a large incidence. It is important to arrive at a definite etiologic diagnosis of heart disease. It is necessary to qualify such diagnoses from an etiologic standpoint.

Aneurysm of the Aorta

DR. EDWIN J. SCHISLER, St. Louis: Involvement of the heart and great vessels by syphilitic infection is more common than clinical symptoms show. About 80 or 90 per cent of aortic aneurysms represent a complication or end-result of syphilitic aortitis. The early recognition of aortic disease by clinical symptoms is important. Three cases are reported: aneurysm of the descending aorta; aneurysm of the arch which ruptured into the esophagus, and abdominal aneurysm, which is shown by pneumoperitoneum, and which on examination showed a large peritoneal mass at the level of the first and second lumbar vertebrae about the size of a man's fist, with definite pulsation, expansile in character.

Hemoptysis in Mitral Stenosis

DR. A. MORRIS GINSBERG, Kansas City: In two cases of mitral stenosis in a youth, aged 20, hemoptysis was a prominent symptom. In one case continuous hemorrhages, small in amount, were present over a period of two years. Here the lung structure showed characteristic heart failure cells with marked fibrous changes throughout. The other case lasted only seven months and ended fatally after a profuse hemorrhage.

The Schilling Differential Blood Count

DR. R. B. H. GRADWOHL, St. Louis: To the clinician, the differential count of Schilling is very helpful. Instead of following the old method of Ehrlich, we now divide the neutrophils into the degenerative, regenerative and degenerative-regenerative groups. This method of counting gives information not hitherto obtainable. It is of interest to the medical man, to the surgeon, to the obstetrician and to other specialists. It serves to call attention to diagnostic facts and also serves to check up prognostic conclusions.

Chest Conditions Simulating Pulmonary Tuberculosis

DR. W. J. BRYAN, Mount Vernon, Mo.: All primary pleurisies should be considered tuberculous until proved otherwise. This also holds good for hemorrhage of the lung, although only 50 per cent of the lung hemorrhages are caused by tuberculosis. The cough in an early tuberculous lesion is dry, hacking and nonproductive. A loose, productive cough is suggestive of suppurative disease, such as lung abscess or bronchiectasis, except in advanced tuberculosis, when the diagnosis is easy. Unusually rapid pulse and nervousness suggest hyperthyroidism and call for a metabolism test. Extreme cachexia in the absence of long-standing disease is more characteristic of carcinoma. Abnormal signs at the base are more indicative of a nontuberculosis lesion than otherwise, and must be proved to be tuberculous. On the other hand, râles, increased whispered voice or rough breath sounds in the upper third of the lung should be considered tuberculous until proved otherwise. Grouped râles in this region do, however, occur in chronic sinusitis, pyorrhea and upper respiratory infections. Tuberculosis must be ruled out and the presence of nontuberculous disease verified by other methods. Roentgen examination should be made by means of stereograms, and is a part of the inspection of the chest. No chest examination is complete without such a study, but one must not place too much dependence on roentgenographic study alone. Opaque oils have proved to be a great aid in the study of nontuberculous lung conditions. The presence of tubercle bacilli in the sputum makes the diagnosis self-evident. Their absence requires further study. In doubtful cases, a guinea-pig inoculation should be made. Blood counts, especially the Schilling count, sometimes give valuable information. Blood Wassermann tests are most essential in doubtful cases. Urinalysis and all routine tests should be made to rule out possible disease elsewhere in the body.

Pain in the Thorax

DR. STUART PRITCHARD, Battle Creek, Mich.: Pain in the thorax may arise from diseases of the thoracic wall, such as myositis, osteitis and neuritis. There is a difference between neuritis and neuralgia. Pleural pain may not be due to friction. Tension of the inflamed surfaces may be a factor. Diaphragmatic pleurisy may simulate such clinical entities as gallbladder disease, chronic appendicitis and duodenal and gastric ulcer. Cardiovascular pain may be divided into retrosternal, precordial and interscapular pain. The site of pain in mediastinal disorders depends on the position of the tumor. Diseases of the spinal cord or vertebral bodies may cause root pain. It is important to differentiate between neuritis and radiculitis, the latter often being the result of a serious spinal lesion.

Basal Metabolism in Pulmonary Tuberculosis

DRS. ALPHONSE MCMAHON and H. A. KLEIN, St. Louis: Our series consisted of forty cases classified as: incipent, twelve; moderately advanced, nine, and far advanced, nineteen. The determinations were all made with the patient in an afebrile state. The results were as follows: In the first group the average basal metabolic rate was plus 3.9 per cent; in the second group, plus 13 per cent, and in the far advanced group, 21.08 per cent.

Treatment of Laryngeal Tuberculosis with Water Cooled Mercury Quartz Lamp with Laryngeal Applicator

DRS. E. E. GLENN and B. J. MCGINNIS, Mount Vernon, Mo.: Eighty cases of laryngeal tuberculosis have been treated by this method at the Missouri State Sanatorium since Feb. 1, 1928. The length of exposure at the beginning of the treatment was ten seconds and was increased five seconds each treatment to a maximum of from thirty to forty-five seconds, depending on the reaction the lesion showed to the ultraviolet rays. Treatments were given two or three times weekly, usually two times. The average number given each patient was thirty-four. The treatments have been given by physicians after the larynx has been visualized in the laryngeal mirror, the light being directed as nearly as possible on the diseased portion of the larynx. Approximately 95 per cent of cases treated have shown symptomatic improvement. Dysphagia has always been lessened or completely relieved. The treatment has been effective in decreasing laryngeal irritation and cough that is not greatly productive and is caused by the laryngeal irritation. Fever has been lowered in several cases with extensive laryngeal involvement. Hoarseness, when present, is decreased or completely relieved, but a larger number of treatments are required. Approximately 70 per cent of the cases treated have shown definite improvement of the laryngeal lesion, in some cases in the face of advancing pulmonary disease. Lesions

of the epiglottis, posterior pharyngeal wall and tonsils have responded well. Most of the patients who have not shown improvement of the laryngeal lesion have been those with a severe productive cough. Treatment in one case was discontinued because of hypersensitiveness to ultraviolet rays. Syphilis has not proved to be a definite contraindication to this form of treatment. Ten per cent of the patients treated show apparent arrest of laryngeal lesions and have been free from symptoms for periods of three months or more. None of the patients in this group have arrested or apparently arrested pulmonary disease.

Pulmonary Lesions Secondary to Dental Caries

DR. ALBERT S. WELCH, Kansas City: A young woman was said to have pulmonary tuberculosis on the basis of the repeated finding of acid-fast organisms in the sputum over several years' time. This patient's condition was considered hopeless because the roentgenogram revealed only a part of one lung aerated, and disseminated suppurative bronchitis was present. She had been bedfast for two years. Repeated examination of the sputum failed to reveal tubercle bacilli. Streptococci were found in abundance. Toothache had preceded her last attack, and the roentgenogram gave evidence of focal periapical disease which was confirmed on extraction of the teeth. Multiple pockets of pus in the chest were drained by repeated paracentesis and she made a complete recovery. The second case was diagnosed as influenza, then right maxillary sinusitis, then spreading right-sided encephalitis and finally right-sided lung abscess. The patient was elderly. All of her teeth had been removed ten years previous to this illness. For some time preceding the onset of her illness she had had a sore gum. The roentgenogram revealed a tooth fragment with a surrounding region of rarefaction. The tooth fragment was removed, the lung abscess drained through a bronchus, and the patient made a complete recovery.

Fractures of the Jaw

DR. V. P. BLAIR, St. Louis: There are no fractures in the human body that give so much deformity or so much interference with function in proportion to the amount of displacement as do fractures of the upper or lower jaw, and there is no place in the body in which such accurate adjustments are possible as on these bones, but in comparatively few of these fractures are the fullest possibilities of proper adjustment ordinarily realized. The Gilmer plan of wiring the upper to the lower teeth is applicable to most cases and will generally give the best obtainable result.

The Greatest Problem of the Internist

DR. LOGAN CLENDENING, Kansas City: The greatest problem of the internist is the chronic invalid without physical signs. Since the tendency of the physician today is mechanistic, such a case is usually interpreted on physical grounds. Therefore, the patient is likely to be handled from the standpoint of a faddist. To solve the problem the profession must recognize that these patients are the victims of personality disorders and that they should be treated as warped personalities and not as victims of organic diseases. The patient should be treated by the general practitioner or the general internist by rational psychotherapeutic methods, not by specialists in psychotherapy, such as psychanalysts or Freudians.

Goiter Surgery as Encountered in Patients Coming from the Ozark Region

DR. F. T. H'DOUBLER, Springfield: In the Ozarks there is a prevalence of thyroid enlargement among adolescent school children, and even among adults one occasionally encounters very large colloid goiters and rather frequently cases of slight to moderate thyroid enlargement not associated with disturbed function. Surgical cases comprise occasional large colloid goiters, either unsightly or producing pressure symptoms; very few cases of malignant conditions; frequent cases of exophthalmic goiter and numerous cases of toxic adenoma; simple adenomas in patients over 30 years of age, and a mixed group associated with increased basal metabolic rate. Until recently, severe and desperate cases developed because of either failure of recognition or unwillingness to submit to operation. There has been great improvement as to early recognition but a new trouble has arisen in the abuse of iodine therapy. This should be used in toxic cases only as a measure of preoperative preparation, since it is not a cure and the response to a first course is usually much better than to subsequent courses. Furthermore, the surgeon should see the patient before iodine therapy is started, as he might otherwise be led to misjudge the severity and plan his campaign erroneously.

Some of the Causes of Death Following Operation for Appendicitis

DR. FRANCIS REDER, St. Louis: The death rate in operations performed for disease of the appendix is still an appalling one. Some of the reasons are: (1) an inexperienced operator; (2) faulty diagnosis; (3) an incorrectly placed incision; (4) too much additional surgery on adjacent organs; (5) improper drainage; (6) inadequate knowledge as to postoperative care; (7) inability to recognize postoperative complications, and (8) neglect to operate as soon as the diagnosis of appendicitis has been made. Deaths from appendicitis, whether operated on or not, are generally due to peritonitis or toxemia. In the ultimate analysis, a death from appendicitis can be ascribed to a toxemia.

Closure Without Drainage

DR. CARYL POTTER, St. Joseph: The use or omission of abdominal drainage is often a personal equation determined by the individual surgeon, and definite information regarding the indications and contraindications is meager. In borderline cases it will be omitted more often in proportion to the surgeon's familiarity with normal tissue, surgical pathology and correct surgical technic. In the absence of a frank indication, the introduction of drainage is a conscious or subconscious admission of indecision, the possibility of a leak through an avoidable or unavoidable weak suture line, faulty technic or uncontrollable oozing. It often shows a lack of confidence or knowledge in the reparative power of the peritoneum and its ability to resist and overcome infection.

Fetal Calf's Liver Feeding in Aplastic Anemia

DRS. J. H. J. UPHAM and G. I. NELSON, Columbus, Ohio: In a case under continuous observation for two years, the symptoms have been constantly those of primary aplastic anemia. At a time when the condition of the patient was becoming worse, the use of raw fetal calf's liver was begun. There was almost an immediate response. This was shown by the decrease and practically complete cessation of the purpuric manifestations. On this treatment the red cell count and hemoglobin have been maintained at a constant level but without any tendency to rise. Subsequent transfusions, however, have improved the condition of the blood and in each instance the new high level has been maintained.

Ambulant Management of Chronic Peptic Ulcer

DR. F. D. GORHAM, St. Louis: In a study of 3,157 ambulant office patients, found in a practice limited to internal medicine, wih a predominance of gastro-intestinal disorders, the diagnosis of chronic peptic ulcer appeared 238 times, or approximately 7.5 per cent. Duodenal ulcer occurred three times as frequently as gastric ulcer and was three times as frequent in the male as in the female; gastric ulcer was two times as frequent in the female as in the male. The average duration of symptoms at the first examination was 6.8 years, the longest period being fifty-four years. Classification of patients according to personality or physical types could not be made. Lawyers led as an occupational class. Pain was the most frequent and diagnostically important symptom. Vomiting occurred in approximately 30 per cent of the duodenal and 60 per cent of the gastric cases. Definite hemorrhage appeared in 8 per cent of the duodenal and 16 per cent of the gastric cases. Gastric cancer, as a complication, occurred in two subjects with a previous history of gastric ulcer. A high free hydrochloric acid concentration in the fasting contents of the stomach was especially noteworthy in the duodenal subjects. Occult blood in the stool was found in 56 per cent of the cases. A positive Wassermann reaction was present in only two of the duodenal and one of the gastric subjects. From a questionnaire sent to ambulant patients, it was found that 68 per cent had no difficulty in following a diet regimen; 77 per cent stated that they had obtained relief, but only 38 per cent remained free from symptoms.

Current Medical Literature

AMERICAN

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Titles marked with an asterisk (*) are abstracted below.

American J. Ophthalmology, Chicago

12: 453-546 (June) 1929

External Exudative Retinitis (Coats' Disease): Case. S. L. Olsho, Philadelphia.—p. 453.
Indian and Trachoma Problem. L. W. Fox, Philadelphia.—p. 457.
Development of Human Cornea. N. E. Israel, Houston, Texas.—p. 469.
Observations from Routine Bacteriologic Examination of Conjunctivitis Cases. S. H. McKee, Montreal.—p. 475.
Mechanism of Glaucoma. P. C. Kronfeld, Chicago.—p. 480.
Basal Cell Papillocarcinoma at Limbus. J. Fejer, Budapest, Hungary. —p. 484.
Retinal Detachment Complicating Insulin Therapy. D. Alperin, New York.—p. 486.
Quinine Amblyopia Complicating Influenza Pneumonia. H. L. Hilgartner, Jr., Austin, Texas.—p. 488.
Apparent Accommodation in Aphakic Eye. J. J. Horton, Eagle Pass, Texas.—p. 489.
Late Metastasis from Choroidal Sarcoma. C. N. Howard, Warsaw, Ind.—p. 490.
Convergent Strabismus: Two Cases. A. E. Davis, New York.—p. 490.

American J. Pathology, Boston

5: 197-332 (May) 1929

Meningococcus Endocarditis: Case. H. E. MacMahon and E. A. Burkhardt, Jr., Boston.—p. 197.
Suggestions for Staining Tumors of Spongioblastic Origin. N. C. Foot, Cincinnati.—p. 215.
Impregnation of Neuroglia with Ammoniacal Silver Salts. N. C. Foot, Cincinnati.—p. 223.
Silver Staining of Skin and Its Tumors. G. F. Laidlaw, New York.—p. 239.
*Meconium Ileus with Congenital Stenosis of Main Pancreatic Duct. B. A. Kornblith and S. Otani, New York.—p. 249.
Percentage of Different Types of Cells in Male Adult Human Hypophysis. A. T. Rasmussen, Minneapolis.—p. 263.
Malignant Mediastinal Teratoma. W. F. Jacobs, Buffalo.—p. 275.
*Congenital Anomalies of Heart. I. Gáspár, Rochester, N. Y.—p. 285.
*Studies on Sex: Interstitial Cells in Gigantism. W. G. Downs, Jr., Philadelphia.—p. 295.
*Myeloblastic Sarcoma of Cranium. E. F. Hirsch, Chicago.—p. 303.
*Teratoma of Neck. O. Saphir, Cleveland.—p. 313.
Vessel Canals in Normal and Pathologic Bone. H. L. Jaffe, New York. —p. 323.

Ileus Due to Meconium.—This report by Kornblith and Otani concerns a case of intestinal obstruction in a new-born child, a double perforation of the ascending colon with a superimposed peritonitis and the formation of a false diverticulum in the ileum, as a result of accumulated thickened meconium. Congenital stenosis of the duct of Wirsung, and the consequent absence of pancreatic juice, caused inspissation of meconium with subsequent intestinal obstruction, ileus and perforation.

Congenital Anomalies of Heart.—In one of the two cases reported by Gáspár there was entire absence of the aortic arch, which occurred because, in embryonic life, the fourth left branchial artery was not laid down. The rarer type of aortic stenosis was also found with an interventricular septum defect. The congenital heart anomaly had no relation to death, the cause of which was a general malnutrition and bronchopneumonia. In the second case an isolated transposition of ventricles occurred. Both large arteries, the aorta and the pulmonary artery arise from the left ventricle. This is explained by the imperfect rotation of the septum trunci, which divided the truncus arteriosus, causing an aortic stenosis. A very small subaortic defect was found.

Interstitial Cells in Gigantism.—The patient described by Downs, a definite giant, did not have the hypoplastic genitalia or the marked feminine secondary sex characteristics usually associated with such a condition. Microscopically there was an apparently complete absence of testicular interstitial cells, which, while they are supposed to limit bone growth, are likewise supposed to produce, in part at least, the masculine type of secondary sex characteristics.

Myeloblastic Sarcoma of Cranium.—A large myeloblastic sarcoma of the skull with metastases into the right and left deep cervical lymph nodes and into the right lung is described by Hirsch. The tumor and its metastases contained cells that resembled cellular components of the bone marrow.

Teratoma of Neck.—A case of a teratoma of the neck in the region of the thyroid in a stillborn colored female is reported by Saphir. The main constituent of this tumor was brain tissue, but derivatives of the three germinal layers were present. For the first time groups of cells resembling blood islands are described in this tumor. Even though the location suggests the thyroid gland as the origin, it is more likely that the tumor arose in the neighborhood of this gland. The tumor is classified as an embryoid teratoma according to Budde, and as a coetaneous teratoma according to Askanazy.

Annals of Internal Medicine, Ann Arbor, Mich.

2: 1139-1242 (May) 1929

Problem of Pseudosyphilis. J. H. Stokes, Philadelphia.—p. 1139.
Basal Metabolism in Polycythemia Vera. T. L. Bliss, Rochester, Minn. —p. 1155.
*Hematologic Study of Three Generations of a White Family Showing Elliptical Erythrocytes. W. C. Hunter and R. B. Adams, Portland, Ore.—p. 1162.
*Potassium Permanganate in Treatment of Pneumonia. J. L. Chester, Detroit.—p. 1175.
Total Base in Gastric Contents and Gastric Secretion. K. M. Close, Rochester, Minn.—p. 1185.
*Postinfluenzal Vomiting with Symptoms of Lethargic Encephalitis. A. S. Welch, Kansas City, Mo.—p. 1194.
Investigations on Etiology of Tropical Sprue in Porto Rico. C. Weiss, F. Landron, O. Costa-Mandry and D. Wilkes-Weiss, San Juan, Porto Rico.—p. 1198.
*Diabetes Mellitus: Etiology. J. C. Krantz, Jr., Baltimore.—p. 1209.
Our Debt to Aristotle. L. J. Moorman, Oklahoma City.—p. 1216.

Three Generations of Family Showing Elliptical Erythrocytes.—The abnormality of the erythrocytes in the family reported on by Hunter and Adams is obviously hereditary since it occurred in one parent, all of his children and three of his six grandchildren. Both sexes transmitted the anomaly. The red cell counts and hemoglobin figures were generally low in spite of the apparent good health of the subjects. The one member who was studied carefully had a distinct anemia without a demonstrable cause. The rôle of the erythrocytic anomaly as a cause of the anemia is problematic, but the low red cell count and hemoglobin shown by so many of the group who were in apparent good health suggests the possibility of some hematopoietic disturbance. One member of the family having well marked anemia and treated exclusively with the nuclear extractives of liver has shown an appreciable improvement in the hematologic and clinical picture.

Potassium Permanganate in Treatment of Pneumonia.—Chester records his experiences with this treatment in thirty-three cases. He used the standard solution, 2 grains (0.13 Gm.) of permanganate to 1½ pints of warm sterile water, injected rectally by means of a funnel and catheter, the patient lying on his left side, and with the intention of the fluid being retained. The initial injection was 4 ounces, repeated every three hours. Of twenty-three patients treated under ideal conditions, twenty-one recovered and two died. Of twenty cases, all severe and all complicated, some showing chronic heart conditions of long standing, and nearly all chronic alcoholism, ten were treated by other than the potassium permanganate method, and in all death occurred. The remaining ten patients received the standard solution of the drug. Five in well nigh hopeless condition recovered.

Postinfluenzal Vomiting with Symptoms of Epidemic Encephalitis.—Welch reports five cases of postinfluenzal vomiting which he believes to be examples of mild acute epidemic encephalitis.

Diabetes Mellitus.—From zoological and phytopharmacologic experiments described by Krantz, evidence has been produced which seems to contraindicate the existence of a virus of diabetes which in turn may be responsible for the transmissibility of diabetes mellitus.

Archives of Otolaryngology, Chicago

9: 473-596 (May) 1929

Stenosis of Larynx. E. Schmiegelow, Copenhagen, Denmark.—p. 473.
Open Eustachian Tube. L. K. Pitman, New York.—p. 494.
Conservative Modifications of Lothrop External Frontal Sinus Operation. F. R. Spencer, Boulder, Colo.—p. 501.
*Chemotherapy and Serum Therapy of Pneumococcus and Streptococcus Meningitis: VII. Intracarotid Treatment for Experimental Pneumococcus Meningitis. J. A. Kolmer, Philadelphia.—p. 509.
Tonsillectomy. H. V. Dutrow, Dayton, Ohio.—p. 528.
Facial Erysipelas Following Tonsillectomy: Case. J. Miller, New York.—p. 534.
Two-Stage Thyrotomy in Cases Considered Bad Risks. G. B. New, Rochester, Minn.—p. 538.
Use of Still Film in Place of Lantern Slides. W. W. Morrison, New York.—p. 543.
Pouch of Esophagus. H. P. Mosher, Boston.—p. 547.
Technical Advances in Otolaryngology. S. L. Ruskin, New York.—p. 548.
Tonsils and Adenoids. F. K. Hansel, St. Louis.—p. 550.

Intracarotid Treatment for Experimental Pneumococcus Meningitis.—A method is outlined by Kolmer for the treatment of pneumococcus meningitis in human beings, consisting of cisternal drainage, bilateral intracarotid (common) injections of mixtures of antibody solution or serum, with ethylhydrocupreine hydrochloride combined with intracisternal injections of these solutions.

Archives of Pathology, Chicago

7: 767-948 (May) 1929

*Effects Occasioned in Dogs by Diphtheria Toxin: II. Analysis of Mechanism Possibly Responsible for Alterations of Heart. H. J. Stewart, New York.—p. 767.
Reticulo-Endothelial System in Infectious Anemia of Albino Rats. P. R. Cannon and P. H. McClelland, Chicago.—p. 787.
Sickle Cell Anemia. G. A. Bennett, Boston.—p. 801.
Effect on White Blood Cells of Intraperitoneal Injection of Whole Liver. M. M. Huffman, J. S. Lawrence and E. Jones, Nashville, Tenn.—p. 804.
Fatty Changes in Kupffer Cells in Liver of Guinea-Pig in Phosphorus Poisoning. J. S. Lawrence and M. M. Huffman, Nashville, Tenn.—p. 809.
Increase in Number of Monocytes in Blood Following Subcutaneous Administration of Yellow Phosphorus in Oil. J. S. Lawrence and M. M. Huffman, Nashville, Tenn.—p. 813.
Origin and Fate of Sickle Shaped Red Blood Cells. J. Levy, New Rochelle, N. Y.—p. 820.
Anaphylaxis in White Rat as Influenced by Diet. B. C. Seegal and D. Khorazo, New York.—p. 827.
Simple Glycerol Water Crystal Violet Potato Cylinder Medium for Diagnostic Cultures of Tubercle Bacilli. H. J. Corper and N. Uyei, Denver.—p. 835.
Human Paleopathology. H. U. Williams, Buffalo.—p. 839.

Effects of Diphtheria Toxin in Dogs.—Stewart asserts that the injection of diphtheria toxin into a dog in a sufficiently large dose is followed by a decrease in the size of the heart. Analysis of the factors that may be involved in this alteration indicates that it is due to loss of weight by the heart, although other factors possibly play a part.

Canadian M. Assoc. Journal, Montreal

20: 587-696 (June) 1929

Abdominal Pain in Children. H. W. Carson, London, Eng.—p. 587.
*Rupture of Liver: Eleven Cases. P. H. T. Thorlakson and A. W. S. Hay, Winnipeg.—p. 593.
Postoperative Care of Surgical Cases. J. McKenty, Winnipeg.—p. 599.
Cardiac Disease. E. McPhedran, Toronto.—p. 604.
*Heart in Typhoid. G. R. Brow, Montreal.—p. 606.
*Frequency of Lobar Pneumonia in Infancy and Childhood. G. Manace, Ann Arbor, Mich.—p. 609.
Mirror-Picture Dextrocardia Complicated by Mitral Aplasia and Pulmonary Hypoplasia with Great Hypertrophy of Transposed "Right" Chambers. M. E. Abbott and W. Moffatt, Montreal.—p. 611.
Renal Tumors. D. W. MacKenzie and G. A. Parkins, Montreal.—p. 616.
Diverticulum of Esophagus: Two Cases. C. W. Burns, Winnipeg.—p. 622.
*Obstructive Biliary Cirrhosis of Liver. P. H. Sprague, Edmonton, Alta.—p. 627.
Treatment of Fractures and Other Deformities of Nose. F. Risdon, Toronto.—p. 631.
Rupture of Urethra. A. C. Abbott, Winnipeg.—p. 634.
Lung Abscess Treated by Artificial Pneumothorax. F. H. Pratten and L. C. Fallis, London, Ont.—p. 638.
Dislocation of Semilunar Bone of Wrist. C. B. Keenan and A. L. Wilkie, Montreal.—p. 639.
Puerperal Gangrene: Case. W. J. Stevens, Ottawa.—p. 642.
Teratoma (Dermoid) of Ovary. C. W. Thorne, Melfort, Sask.—p. 642.

Rupture of Liver.—In five years, among 3,900 accident cases brought into the casualty room at the Winnipeg General Hospital, there were only three cases of ruptured liver. In twenty years there were admitted to the wards of the same institution only eleven cases of ruptured liver among a total of 200,000 admissions. The importance of early recognition and prompt surgical measures is emphasized by Thorlakson and Hay. Thole's statistics show, roughly, that for each hour's delay the patient's chances for recovery are diminished by from 2 to 5 per cent. After a delay of more than seventy-two hours operation is usually contraindicated as it will probably hasten the end of an already moribund patient, or retard the recovery of a less severely injured patient, on whom an operation is unnecessary. A blood examination at intervals shows a progressive decline in the red cells and hemoglobin, but an increase in the number of leukocytes. The mortality in the patients operated on was 37.5 per cent. Among these cases the chief factors contributing to the high rate were: (1) multiplicity of injuries, and (2) the length of interval between injury and operation.

Heart in Typhoid.—Sixty-five patients were examined by Brow, forty-one being females and twenty-four males, ranging in age from 7 to 58 years. In all of these there was nothing in the personal history to suggest any previous myocardial or endocardial infection, and all patients stated that there had not been previous cardiovascular symptoms. The personal history of most of the patients showed measles, whooping cough and occasionally tonsillitis, but in none could it be said that the heart had previously received any gross injury. Endocardial murmurs were conspicuous by their absence, and in only ten cases (15.5 per cent) was a soft blowing apical systolic murmur heard, with the patient in the dorsal decubitus. Blood pressure determinations were all decidedly low for the corresponding age period of the person, and in many a low diastolic pressure, with an increased pulse pressure, was consistently found during the progress of the febrile state. The heart rates varied between 60 and 120 a minute and the area of cardiac dulness was not increased appreciably over that anticipated. In fourteen cases (21.5 per cent) distinct and definite prolongation of the P-R interval (auriculoventricular conduction time) was noted, varying in extent from 0.21 to 0.28 seconds. The earliest delay was noted on the eleventh day in two cases, and the latest on the forty-third day of the disease. The majority of conduction changes were noted, however, during the second and third weeks of the patient's illness. This delay of conduction (auriculoventricular) persisted for variable periods of time, the usual period being like that found in cases of acute rheumatic fever, namely, from two to four days. In two cases in which it appeared during convalescence, the delay was manifest over a period of two weeks, during which time it slowly returned to the normal level. The main features and characteristics of the electrocardiograms were unaltered in fifty-one (78.5 per cent) cases, during either the febrile or the convalescent periods. Ventricular preponderance did not appear correlated with the conduction defects. Change in the form of the T wave was noted in only two cases. A careful physical examination of the cardiovascular systems in these cases failed to disclose any evidence, with regard to the pulse, size of the heart, heart sounds or blood pressure, suggesting involvement of the myocardium. The electrocardiographic curves were the sole evidence of any possible and transient invasion. The course which the infection took, the type of infection, the degree of temperature rise and the occurrence of complications did not apparently influence the changes in the electrocardiograms.

Frequency of Lobar Pneumonia in Infancy and Childhood.—A study made by Manace of 131 cases of pneumonia in children lends support to the belief that lobar pneumonia is more common in infants than bronchopneumonia (an incidence of from 1.0 to 0.62). A child with a lobar involvement has four times as great a chance of surviving as one affected with lobular or bronchopneumonia. The general state of nutrition, rather than the specific micro-organism, is probably the deciding factor for the type of pneumonia a child may acquire. The healthy and robust youngster is more likely to develop lobar pneumonia; the undernourished marasmic child usually develops bronchopneumonia. In lobar pneumonia the right upper and left lower lobes are most frequently involved, with the incidence slightly higher in the right apex, followed by the right lower, left upper and right middle lobes.

Obstructive Biliary Cirrhosis of Liver.—A case of biliary cirrhosis of the liver is reported by Sprague, which anatomically exhibited lesions resembling those produced by extrahepatic biliary obstruction, but in which this was not demonstrable, and appears to have been produced by the presence of a long standing low-grade biliary tract infection.

Colorado Medicine, Denver

26: 155-224 (June) 1929

Neglected Foreign Bodies in Eye. M. Black, Denver.—p. 155.
Fundus Photography. W. C. Finnoff, Denver.—p. 157.
Plastic Reconstruction of Lower Lip. L. Freeman, Denver.—p. 160.
Treatment of Nonunion of Fractures at Neck of Femur with Tapered Pins. E. F. Dean, Denver.—p. 163.
Osteomyelitis. F. E. Rogers, Denver.—p. 165.
Phrenic Nerve Avulsion and Value in Treatment of Pulmonary Tuberculosis. C. F. Hegner and I. D. Brontin, Denver.—p. 170.
Treatment of Burns with Tannic Acid. G. B. Packard, Jr., Denver.—p. 173.
*Gold Sodium Thiosulphate in Treatment of Lupus Erythematosus. A. J. Markley and O. S. Philpott, Denver.—p. 177.
Adenoma of Suprarenal Gland with Hypertension. E. G. Faber, Denver.—p. 178.
Treatment of Pelvic Inflammation in Women. W. H. Halley, Denver.—p. 179.
Spinal Anesthesia in Obstetric and Gynecologic Operations. R. Hudston, Denver.—p. 181.
Contraceptive Methods and Indications. M. J. Baskin, Denver.—p. 186.
Paralysis of Larynx. E. L. Apperson, Denver.—p. 188.
Meningococcus Septicemia: Case. G. A. Moleen and D. P. Seecof, Denver.—p. 192.
Onset of Multiple Sclerosis. C. S. Bluemel, Denver.—p. 193.
Epilepsy. H. T. Pershing, Jr., Denver.—p. 196.
Epidemic Cerebrospinal Meningitis. R. H. Jones, Denver.—p. 198.
Generalized Lymphosarcomatosis with Extensive Cranial Involvement. D. P. Seecof, Denver.—p. 201.
*Frequency of Gallbladder Disease: Diagnosis at Autopsy. F. E. Becker, Denver.—p. 204.
Principles of Posterior Lobe of Pituitary Gland. W. B. Draper, Denver.—p. 210.
Influenza as It Affects Infants and Children. W. W. Barber, Denver.—p. 212.
Care in Catheterization. J. A. Philpott, Denver.—p. 218.
Ureteral Blood Cast. H. H. Wear, Denver.—p. 219.
Whitman Abduction Treatment of Fracture of Neck of Femur. S. F. Jones and C. E. Sevier, Jr., Denver.—p. 221.

Gold Sodium Thiosulphate in Treatment of Lupus Erythematosus.—Thirty cases of lupus have been treated by Markley and Philpott with gold sodium thiosulphate. None of these failed to show improvement. Three patients developed severe reactions during the course of treatment in two of whom focal infections were evidently the precipitating cause, and in the third an acute influenzal infection. Clinical cures have resulted in all but three of this series, these cases being of many years' duration and much altered by previous treatment. Treatment should begin with small amounts, an initial dose of 25 mg. in 2 cc. of sterile water being given intravenously. Treatments are given once each week, each dose being increased by 5 mg. provided no toxic effects followed the preceding injection. The maximum dose should not exceed 100 mg. Treatment may be given continuously as long as improvement is observed and no deleterious effects are induced. In case the condition becomes stationary after a reasonable period of treatment, it is advisable to discontinue the administration of the drug entirely for one or two months, when it may be resumed with the probability of further improvement.

Frequency of Gallbladder Disease.—Pathologic changes in the gallbladder were found by Becker in 20.57 per cent of 554 autopsies. Cholelithiasis was present in 10.83 per cent. The ratio between males and females was from 1 to 1.15 in all gallbladder disease and from 1 to 1.99 in cholelithiasis. Gallbladder diseases are very rare below 20, not uncommon between 20 and 40, and common after 40. Only 10.7 per cent of the cases of gallbladder diseases found at autopsy were diagnosed after death.

Georgia M. Assoc. Journal, Atlanta

18: 187-233 (May) 1929

Fads and Quackery in Medicine. M. Fishbein, Chicago.—p. 191.
Splenic Syndromes with Indications for Splenectomy. L. G. Bowers, Dayton, Ohio.—p. 199.
Radiotherapy in Menstrual and Menopausal Disturbances. J. W. Landham, Atlanta.—p. 215.
Routine Circumcision at Birth. T. B. Gay, Atlanta.—p. 218.

Iowa State M. Soc. Journal, Des Moines

19: 209-260 (May) 1929

Application of Pathology to Clinical Problems. G. H. Hansmann, Iowa City.—p. 209.
Pathology of Pulmonary Tuberculosis Deduced from Physical Signs and Roentgen Plate. K. Dunham, Cincinnati.—p. 214.
Local Anesthesia for General Practitioner. B. R. Weston, Mason City.—p. 219.
Epidemiology of Poliomyelitis. W. H. Frost, Baltimore.—p. 223.
Medicine: Ancient and Modern. J. E. Brinkman, Waterloo.—p. 229.
Treatment of Acute Bone Infections by Orr Method. J. E. M. Thomson, Lincoln, Neb.—p. 233.
Clinical Differentiation of Hyperthyroidism and Functional Disorders. C. W. Baldridge, Iowa City.—p. 236.
Employment of Oxygen in Bone and Joint Diseases. K. R. Werndorff, Council Bluffs.—p. 240.
Dystocia Due to Large Polycystic Kidneys in Fetus: Case. H. A. Miller, Fairmont, Minn.—p. 243.

Laryngoscope, St. Louis

39: 277-342 (May) 1929

Diagnosis of Brain Abscess. F. Kennedy, New York.—p. 277.
Neurolabyrinthitis of Focal Infection Origin. G. W. Mackenzie, Philadelphia.—p. 282.
Atypical Mastoiditis: With Deep Abscess in Temporal Fossa, Beginning as Suspected Acute Parotitis. M. M. Kulvin, Chicago.—p. 290.
Unusual Frontal Sinus Cases. S. R. Skillern, Philadelphia.—p. 292.
Cyst of Left Ethmoidofrontal Region. G. F. Oberrender, New York.—p. 298.
Thyrotomy: Two Cases. J. D. Kernan, New York.—p. 300.
Laryngectomy: Case. J. W. Babcock, New York.—p. 302.
Value of Bronchoscopy in Diagnosis and Treatment of Asthma. L. Daily and R. K. Daily, Houston, Texas.—p. 304.
Bronchoscopy and Esophagoscopy in Infancy. A. J. Guerinot, Pittsburgh.—p. 309.
Posttonsillectomized Persons. A. J. Wagers, Philadelphia.—p. 310.

Medical Journal & Record, New York

129: 601-660 (June 5) 1929

Mucous Membranes as Portals of Entrance of Tuberculous Virus. W. Freudenthal, New York.—p. 601.
Improvement of Tolerance in Diabetic Patients and Importance of Early and Adequate Treatment. H. J. John, Cleveland.—p. 606. (C'cn.)
Posturing and Varicose Veins. D. H. Stewart, New York.—p. 609.
Dacrocystitis, Etiology and Treatment. J. C. Lester, New York.—p. 610.
Food Allergy or Gastro-Intestinal Anaphylaxis. A. Sterling, Philadelphia.—p. 612.
Neurogenic and Psychogenic Disorders of Skin. J. J. Eller, New York.—p. 616. (C'td. from page 559.)
Obesity in Girls and Young Women. H. R. Harrower, Glendale, Calif.—p. 620.
Asthma Caused by Cimex Lectularius: Case. L. Sternberg, New York.—p. 622.
Blood Vessels Are Deserving of More Study. H. A. Hare, Philadelphia.—p. 623.
Arteriosclerosis. W. E. Fitch, Bedford Springs, Pa.—p. 625.
Upper Abdominal Distress in Relation to Chronic Heart Disease. S. L. Immerman, Philadelphia.—p. 630.
Instructions to Patients with Circulatory Disturbances of Extremities. A. M. Rechtman, Philadelphia.—p. 633.
Thrombosis of Inferior Vena Cava with Recovery. A. Weiss, New York.—p. 634.
Myocarditis: Case. B. Ferguson, Birmingham, Ala.—p. 637.

Michigan State M. Soc. Journal, Grand Rapids

28: 415-480 (June) 1929

Massive Collapse of Lung. V. M. Moore, Grand Rapids.—p. 415.
Physiology of Vascular Nervous System and Clinical Significance. C. F. McClintic, Detroit.—p. 419.
Brain Tumors: Problems of Diagnosis. A. S. Crawford, Detroit.—p. 423.
Present Status of Gallbladder Diagnosis and Surgery. F. P. Currier and W. R. Torgerson, Grand Rapids.—p. 428.
Treatment of Traumatic and Acquired Facial Deformities. C. L. Straith, Detroit.—p. 431.
Tuberculosis in Infancy and Childhood. H. C. Metzger, Rochester, Minn.—p. 444.
Eye Findings in Intracranial Complications. G. F. Suker, Chicago.—p. 447.
*Latent Jaundice of Lobar Pneumonia. N. W. Elton, Detroit.—p. 451.
Michigan's Department of Health. G. L. Kiefer, Lansing.—p. 453.

Latent Jaundice of Lobar Pneumonia.—In a series of thirty consecutive cases of lobar pneumonia terminating in crisis or death, a blood bilirubin disturbance was found by Elton in 80 per cent. This percentage becomes 95 if cases occurring during the prevalence of influenza are excluded. In seventeen crisis cases the maximum icterus index occurred on the day of crisis in eight, or 48 per cent; on a day preceding the crisis in four, or 24 per cent, and after the crisis in two, or 12 per cent. No disturbance occurred in two influenzal cases. In 48 per cent of these cases a persistent elevation of the index was found for several days following the crisis. In a series of thirteen fatal cases a maximum index at the threshold of clini-

cal jaundice was found on the day of death in ten. Quantitative bilirubin determinations confirmed the icterus index variations. The biphasic prompt van den Bergh reaction was commonly observed, even in cases with only slight elevation of the icterus index. Pregnancy was present in three cases. All the patients aborted and two died. In these a latent jaundice was observed and in two the van den Bergh direct reaction was prompt, indicating a more severe liver involvement than occurred in the nonpregnant patients. Patients with empyema, though one showed an elevation of the index during the first few days, invariably gave normal readings after the establishment of the pleural exudate. Twelve cases of bronchopneumonia did not show any disturbance of blood bilirubin, with one exception, which was doubtful, and may have been lobar pneumonia.

Military Surgeon, Washington, D. C.

64: 843-1005 (June) 1929

Tribulations of Medical Corps of French Army from Origin to Our Own Time. Inspector General Sieur.—p. 843. (Translated by F. H. Garrison.)
Canine Distemper Vaccine. R. A. Kelser.—p. 857.
Military Operations on Italian Front in 1918. E. E. Hume.—p. 859.
Diseases Common to Man and Animals. R. Randall.—p. 882.
Morale and Psychology. E. L. Munson.—p. 894.
Malaria on Island of Corregidor, P. I.: II. Report of Survey for Anopheline Mosquitoes, Made in December, 1928. J. S. Simmons.—p. 906.
Serum Reactions. S. W. French.—p. 912.
Hospital Real de Españoles de Manila now Sternberg General Hospital. L. L. Gardner.—p. 917. (C'en.)

Minnesota Medicine, St. Paul

12: 343-398 (June) 1929

Angioneurotic Edema: Case. E. J. Simons, Swanville.—p. 343.
Value of Conservative Operations in Irremovable Lesions of Stomach. D. C. Balfour, Rochester.—p. 349.
Carcinoma of Third Portion of Duodenum. R. S. Ylvisaker, Minneapolis.—p. 351.
Prevention of Heart Disease. F. A. Willius, Rochester.—p. 355.
Epitome of Surgical Shock. O. I. Sohlberg, St. Paul.—p. 360.
Cholecystitis Associated with Diabetes. A. N. Collins, Duluth.—p. 362.
Cause and Prevention of Influenza and Influenzal Pneumonia. E. C. Rosenow, Rochester.—p. 366.
Significance of Lower Urinary Tract Findings in Upper Urinary Tract Diseases. J. M. Culligan, St. Paul.—p. 369.
Surgery from Pediatric Standpoint. E. D. Anderson, Minneapolis.—p. 371.
Pellagra Following Alcoholism: Two Cases. J. F. Briggs and G. N. Ruhberg, St. Paul.—p. 374.
Gradenigo's Syndrome: Case. H. Anderson, Duluth.—p. 377.
Clinical Thermometer as Foreign Body in Male Urinary Bladder: Case. E. P. Fenger, C. K. Petter and G. J. Thomas, Minneapolis.—p. 378.

Nebraska State M. Journal, Norfolk

14: 217-256 (June) 1929

Specialization: Present Status and Logical Relation to General Practice of Medicine. F. S. Owen, Omaha.—p. 217.
Functions of Liver. F. C. Mann, Rochester, Minn.—p. 221.
Tumors of Bladder. W. E. Lower, Cleveland.—p. 224.
Practical Surgery. J. E. Summers, Omaha.—p. 228. (Contd.)
Morphologic Hematology: II. Normal and Abnormal Structures of Human Red Corpuscle. N. A. Michels, Omaha.—p. 231.
Symposium on Recent Epidemic of Respiratory Infection Given at Staff Clinic of University of Nebraska Hospital. G. P. Pratt, C. Moore, J. A. Weinberg and J. J. Keegan, Omaha.—p. 236.
Undulant or Malta Fever. J. Buis, Pender.—p. 241.
Multiple Primary Malignancies: Case. B. M. Riley, B. C. Russum and M. W. Barry, Omaha.—p. 247.

New England J. Medicine, Boston

1: 1181-1228 (June 6) 1929

Pelvic Surgery from Point of View of General Surgeon. L. Allen, Burlington, Vt.—p. 1181.
Pelvic Surgery from Gynecologic Standpoint. W. P. Graves, Boston.—p. 1183.
Pelvic Surgery from Viewpoint of Internist. W. Tileston, New Haven, Conn.—p. 1187.
Future of Rural Medicine. J. P. Bowler, Hanover, N. H.—p. 1199.
Responsibility of General Practitioner of Medicine for Cure and Prevention of Tuberculosis. R. B. Kerr, Manchester, N. H.—p. 1201.

New Jersey M. Society Journal, Orange

26: 387-440 (May) 1929

Physicians of Colonial Days in Burlington County. R. D. Anderson, Burlington.—p. 387.
Anemia in Gastro-Intestinal Carcinoma. T. Fitz-Hugh, Jr., and W. T. Shell, Jr., Philadelphia.—p. 391.
Voluntary Mutism. M. Vinciguerra, Elizabeth.—p. 395.
Newer Methods of Therapy in Pneumonia. H. S. Baldwin, New York.—p. 398.
Guild Cooperation Between Prescription Optician and Eye Physician. J. G. Reiss, Newark.—p. 401.
Management of Carcinoma of Uterine Cervix. J. T. Stevens, Montclair.—p. 406.

Ohio State M. Journal, Columbus

25: 425-519 (June 1) 1929

Relief of Intractable Pain by Section of Anterolateral Columns of Spinal Cord (Chordotomy): Three Cases. C. S. Beck, Cleveland.—p. 455.
Regional Anesthesia for Prostatectomy. R. B. Drury, P. D. Scofield and R. E. Krigbaum, Columbus.—p. 460.
Abscess of Nasal Septum. H. C. Rosenberger, Cleveland.—p. 463.
Early Recognition and Conservation in Carcinoma of Breast. E. H. Chapin, Columbus.—p. 465.

Public Health Reports, Washington, D. C.

44: 1299-1352 (May 31) 1929

Occurrence of Bacterium Tularense in Wood Tick, Dermacentor Occidentalis, in California. R. R. Parker, C. S. Brooks and H. Marsh.—p. 1299.
Malaria and Malaria Danger in Certain Irrigated Regions of Southwestern United States. M. A. Barber, W. H. W. Komp and C. H. King.—p. 1300.

44: 1353-1408 (June 7) 1929

Influenza Epidemic at University of Oregon in Fall of 1928. F. N. Miller.—p. 1353.

Southern Medical Journal, Birmingham, Ala.

22: 517-602 (June) 1929

Pathogenesis and Treatment of Acidosis and Alkalosis. A. F. Hartmann, St. Louis.—p. 517.
Bromoderma Treated with Sodium Chloride: Seven Cases. A. H. Lancaster, Knoxville, Tenn.—p. 521.
Spontaneous Pneumothorax in Pneumonia in Children Under Two Years. B. Bashinski, Macon, Ga.—p. 525.
Resection of Prostate Gland Obstructions with Stern's Resectoscope Equipment. T. M. Davis, Greenville, S. C.—p. 528.
*Experimental Ligation of One Ureter with Simultaneous Decapsulation of Kidney on Same Side. J. A. Abercrombie and P. Nolen, Birmingham, Ala.—p. 535.
Congenital Diverticulum of Esophagus: Case. L. V. Rush and C. R. Stingily, Meridian, Miss.—p. 546.
Roentgen Therapy of Pertussis. E. C. Samuel, New Orleans.—p. 548.
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Some Causes of Occasional Infections in Clean Abdominal Cases. C. N. Carraway, Birmingham, Ala.—p. 554.
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Endocervicitis. W. F. Shallenberger, Atlanta, Ga.—p. 561.
Infantile Eczema. C. O. King, Birmingham, Ala.—p. 563.
Methods Used in Treatment of Inguinal Hernia. J. E. Cannaday, Charleston, W. Va.—p. 568.
Heart in Pregnancy. T. P. Sparks, Jr., Jackson, Miss.—p. 571.
Healed Cavity Cases. J. H. McClellan, Oteen, N. C.—p. 573.
Nervous Influence on Occurrence of Cardiac Arrhythmias. D. Luten, St. Louis.—p. 576.
Acute Osteomyelitis and Complications. N. D. Bitting, Durham, N. C.—p. 580.
Preeclamptic Toxemia. W. B. Anderson, Nashville, Tenn.—p. 583.
Correlation of Surgery, Radium and Deep Roentgen Therapy in Treatment of Malignancy. E. T. Newell, Chattanooga, Tenn.—p. 586.
Treatment and Management of Fractures of Hip in Old People. L. Thornton, Atlanta, Ga.—p. 590.
*Tar and Quartz Light Therapy. J. R. Allison, Columbia, S. C.—p. 592.
Artificial Pneumothorax. G. O. Haynes, Oteen, N. C.—p. 593.
Coexisting Diabetes and Primary Anemia. O. Berghausen, Cincinnati.—p. 594.
Precocity from Hypopituitarism. L. W. Elias, Asheville, N. C.—p. 595.

Experimental Ligation of One Ureter with Decapsulation of Kidney on Same Side.—The principal condition noted by Abercrombie and Nolen is the development of general renal atrophy during the first two months after ligature of the ureter and decapsulation of the corresponding kidney. In four of eight cases of renal atrophy reported, the period of ureteral occlusion was less than sixty days. These observations contrast with the results of simple ligation, which does not usually produce atrophy during the first two months. Thus it seems evident that the added feature of decapsulation hastens very markedly the development of renal atrophy following complete ureteral obstruction. This seems to be due most probably to the destruction of capsular anastomosis. There is only a small amount of renal enlargement during the first two months after ligation of the ureter and decapsulation of the corresponding kidney. In many instances there was practically none; in others it was slight, and at most it was not more than 100 per cent above normal. These observations contrast with the results of ureteral occlusion alone, which does not produce anything but dilatation during the first sixty days, and in large degree.

Tar and Quartz Light Therapy.—Allison used coal tar in combination with quartz light in the treatment of certain dermatoses. The air-cooled light is used because the rays are more penetrating. The technic consists of rubbing a thin coat of a proprietary tar-zinc oxide preparation over the surface to

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be treated, and then exposing it to quartz light from fifteen to twenty minutes. After three or four such treatments on successive days, the skin will tolerate from ten to fifteen minutes' exposure without the ointment. This rapidly increased tolerance of the skin to quartz light in the presence of tar is of value. It usually requires from eight to ten days with quartz light alone to attain a tolerance of from ten to fifteen minutes.

Southwestern Medicine, Phoenix, Ariz.

13: 201-246 (May) 1929

Suprapubic Prostatectomy; Hazards and Factors of Safety. V. C. Hunt, Rochester, Minn.—p. 202.
Lung Abscess. J. W. Shuman and D. G. Bussey, Los Angeles.—p. 207.
Food Sensitization and Treatment. O. H. Brown, Phoenix, Ariz.—p. 210.
Carcinoma of Breast. W. W. Waite, El Paso, Texas.—p. 221.
Surgery in Cancer of Breast. W. L. Brown and C. P. Brown, El Paso, Texas.—p. 222.
Value of Roentgen Ray and Radium in Treatment of Breast Carcinoma. J. W. Cathcart, El Paso, Texas.—p. 224.
Localization of Diseases and Injuries of Brain and Spinal Cord. S. D. Swope, El Paso, Texas.—p. 227.
Stone in Prostatic Urethra. W. R. Jamieson, El Paso, Texas.—p. 230.
Gonorrheal Pyelitis: Case. W. R. Jamieson, El Paso, Texas.—p. 230.
Syringomyelia of Morvan Variety: Case. F. Ahumada, El Paso, Texas.—p. 231.
Abscess of Tongue. W. E. Vandevere, El Paso, Texas.—p. 232.

Surgery, Gynecology & Obstetrics, Chicago

48: 721-838 (June) 1929

*Transillumination as Aid in Diagnosis of Breast Lesions. M. Cutler, New York.—p. 721.
*Clinical Study of Eight Cases of Myoma Malignum. B. F. Schreiner, Buffalo.—p. 730.
Surgery of Infiltrating Tumors of Brain. C. A. Elsberg, New York.—p. 733.
Cesarean Section. C. J. Miller, New Orleans.—p. 745.
*Primary Carcinoma of Liver in Childhood. E. J. Kilfoy, Los Angeles, and M. C. Terry, Hines, Ill.—p. 751.
Perinephritic Abscess: Twenty-One Cases. A. H. Peacock, Seattle.—p. 757.
*Ovarian Irradiation and Health of Subsequent Child. D. P. Murphy, Philadelphia.—p. 766.
*Effect of Blood in Peritoneal Cavity on Production of Peritonitis in Animals. J. P. Sparks, Peoria, Ill., and V. C. David, Chicago.—p. 780.
Causation of Intracranial Aerocele by Brain Flap. A. K. Henry and R. St. A. Heathcote, Cairo, Egypt.—p. 782.
*Cecal Diverticulosis: Traumatic Diverticula. L. A. Greensfelder and R. I. Hiller, Chicago.—p. 786.
Transperitoneal Closure of Vesicovaginal Fistula. F. Legueu, Paris, France.—p. 796.
Suprapubic Cystotomy under Local Anesthesia. R. C. Begg and G. F. V. Anson, Wellington, New Zealand.—p. 799.
Importance of Peritonization in Abdominal Surgery. J. E. Cannaday, Charleston, W. Va.—p. 803.
*Successful End-to-End Suture of Traumatic Tear of Pancreas: Case. A. Newton, Melbourne, Australia.—p. 808.
*Rapidly Curative Operation for Irritable Ulcer of Malleolus. C. E. Corlette, Sydney, Australia.—p. 811.
Prevention of Peritoneal Adhesions. G. Gellhorn, St. Louis.—p. 817.
*Varicose Veins: Injection Versus Operative Treatment. H. O. McPheeters, Minneapolis.—p. 819.

Transillumination as Aid in Diagnosis of Breast Lesions.—Cutler calls attention to the value of transilluminatin in the diagnosis and interpretation of pathologic conditions in the breast and its special value in the localization of the lesion in cases of bleeding nipple. The Cameron transilluminating electric lamp was chosen. The examination is made in a totally dark room with the patient sitting in a revolving chair opposite the examiner. The lamp is placed against the undersurface of the breast and gradually moved as different areas are inspected successively, the object being to place the particular portion in question directly between the light and the examiner's eye. By means of gentle pressure on the upper surface, thus compressing the organ between the hand above and the light beneath, the degree of translucence may be increased. The tail of the breast is best transilluminated by placing the small curved lamp underneath the axillary fold, directing the light anteriorly. Both breasts are examined as a routine, the normal side being transilluminated first to serve as a standard for comparison. The results of the examination of 174 cases by this method are detailed.

Myoma Malignum.—Among 1,205 cases of tumors of the uterus which have been examined and treated at the New York State Institute for the Study of Malignant Disease during a period of fourteen years, from 1914 to 1929, 845 were epithelioma of the cervix; forty-one were adenocarcinoma of the cervical canal; 121 were adenocarcinoma of the fundus of the uterus; one was epithelioma of the fundus of the uterus (metaplasia); 197 were leiomyoma (fibroids), and eight were malignant leiomyoma. A study made by Schreiner of the eight cases of malignant leiomyoma reveals four important facts: (*a*) Malignant myoma does occur in any decade; (*b*) in an analysis of the symptomatology there are no pathognomonic symptoms of this disease; (*c*) the operative treatment as it was carried out in these eight cases was inadequate, as is demonstrated by the recurrences after intervals of time following operation; (*d*) surgeons in general should heed and act on the laboratory reports of suspected or definitely proved malignant myoma and insist on thorough irradiation as soon after operative intervention as the healing of the wound will permit. Only in this way can the patient receive the best insurance against local recurrence. Of the eight patients one is clinically well four years and nine months after treatment. In this case irradiation was used one month after operation. The end-results in the other seven cases have been poor.

Primary Carcinoma of Liver in Childhood.—Kilfoy and Terry report a case of primary carcinoma of the liver in a child, aged 9 years. An unusual feature is recorded, namely, the congenital absence of uterus, tubes and ovaries. Cirrhosis, so frequently reported in the literature in hepatic carcinoma, is shown to have been present in the case and its prenatal occurrence is suggested by the clinical history. A summary of forty-three reported cases is given, together with a bibliography.

Ovarian Irradiation and Health of Subsequent Child.—Murphy delivers his second communication dealing with the health of children born following maternal pelvic radium or roentgen irradiation. An attempt has been made to determine the nature, seriousness and frequency of any disturbances of health or defects in development among these children, and to ascertain, if possible, whether the maternal irradiation was entirely or only partly responsible for such faulty structure or disturbances of function as may be found among them. From the study of the literature and from an estimation based on the replies to a questionnaire, it seems apparent that relatively few children have been born to women who were subjected to pelvic irradiation. Fifty-three women are reported on who received postconception pelvic radium or roentgen irradiation. Abortion occurred in twenty-three instances (43.4 per cent). Of the thirty children born at term, twelve (40 per cent) presented some more or less serious disturbances of health or development. These defects, in many instances, were quite serious and tended to conform somewhat to a type. Two hundred and thirty pregnancies are reported on, occurring in women who received preconception pelvic irradiation. Abortion occurred in fifty (21.7 per cent) instances. Of the 180 children born at term, twenty-seven (15 per cent) presented some disturbance of health or defect in development. These defects were much less severe than those occurring in the preceding group and did not conform in any way to a type. There is as yet no definite indication that ovarian irradiation, prior to fertilization, has any detrimental influence on the health or development of any subsequent children.

Effect of Blood in Peritoneal Cavity on Production of Peritonitis.—On the basis of their experimental results Sparks and David conclude that autogenous blood together with varying types of pathogenic micro-organisms injected into the peritoneal cavity of dogs, rabbits and guinea-pigs does not predispose to the production of peritonitis.

Cecal Diverticulosis: Traumatic Diverticula.—An extensive study, covering observations in 5,385 major operations and 400 adult necropsies performed at the Michael Reese Hospital, has yielded four cases of traumatic solitary cecal diverticulum, two at operation and two at autopsy. Illustrations are presented by Greensfelder and Hiller to demonstrate etiologic factors and possibilities in the formation of these diverticula: (*a*) eversion of the cecum between two constricting adhesive bands; (*b*) traction of a narrow adhesion; (*c*) eversion at the stump site as a result of weakness due to the migration of a silk pursestring into the cecum, and (*d*) eversion at the stump site as a result of weakness following the rupture of a stump abscess into the lumen of the bowel.

Successful End-to-End Suture of Traumatic Tear of Pancreas.—In the case reported by Newton repair was effected

as follows: A strip of omentum was fashioned about 2 inches in width and of sufficient length to encircle the pancreas. This was placed behind the tear and the posterior edge of the gland sutured with chromic gut. Two similar sutures were then placed in the vicinity of the duct, which could not be identified. The anterior surface of the pancreas was similarly sutured. Finally the omental flap was brought over the anterior suture line and fixed by chromic gut sutures. A rubber drainage tube was placed down to the line of suture and the abdomen closed. The patient did very well after operation. There was no rise of temperature and very little drainage from the tube, which was removed in four days. Ten days later the patient developed a swelling in the upper portion of the abdomen, obviously due to an effusion of fluid in the lesser sac. This did not give rise to any discomfort at first, but steadily increased in size until it gave rise to some respiratory difficulty. One month after the first operation, this cyst was opened through the left rectus by a small incision. It contained 2 pints of clear fluid, strongly alkaline in reaction, containing 250 units of diastase, some lipase, but no trypsin. The pancreas was palpated in the posterior wall of the cyst and there appeared to be good union of the gland at the site of suture. The wall of the cyst was sutured to the parietal peritoneum and a rubber drainage tube inserted. Drainage at first was free but soon decreased in amount. The tube was removed in a week and three weeks later the patient left the hospital with his wounds healed. He has remained perfectly well since discharge and is again engaged at hard farming work. Tests of pancreatic function were made one and two years after operation. No interference with the external secretion of the pancreas was evident.

Rapidly Curative Operation for Irritable Ulcer of Malleolus.—Corlette makes a subcutaneous section of the nerve and all the tissues from the skin to the bone above and on either side of the painful area that includes the ulcer.

Injection Versus Operative Treatment of Varicose Veins.—A statistical study made by McPheeters, based on 119 answers to a questionnaire, shows that the mortality rate from pulmonary embolus following the operative care of this condition is 0.53 per cent as compared with 0.00754 per cent following the injection treatment, or approximately seventy times greater. The number of nonfatal pulmonary emboli are almost negligible after the injection treatment as compared with a frequent occurrence after the surgical treatment. Following surgery there is a 0.41 per cent mortality from secondary causes such as pneumonia, whereas this is rare after the injection treatment. Most of the operations are done under general anesthesia whereas for the injection treatment nothing is required but preliminary analgesic tablets. The operative care demands an average of 15.1 days in the hospital as compared to no hospitalization for the injection method. In the operative cases the patients lose an average of 34.8 days from their work whereas those treated by injection continue their daily routine. McPheeter believes that there will be found many more recurrences after the operative removal of a few of the varicosed segments, which at best can be only partial, than after the injection treatment.

U. S. Veterans' Bur. M. Bull., Washington, D. C.

5: 407-486 (June) 1929

Surgical Treatment of Pulmonary Tuberculosis. H. Lilienthal.—p. 407.
Human Myiasis, Externa. S. T. Harris.—p. 412.
Progressive Osteomyelitis of Cranial Bones. W. H. Conner.—p. 417.
History of Anesthetics. G. A. Bullard.—p. 422.
Fractures Without Manifest Clinical Symptoms. J. Lancer.—p. 426.
Survey of Group of Discharged Neuropsychiatric Patients. W. J. Vivian. —p. 429.
*Heat as an Adjuvant to Treatment of Neurosyphilis. F. S. Salisbury and W. V. Eichenlaub.—p. 432.
Diagnosis of Hepatic Abscess. B. A. Warren.—p. 435.
*Bibliotherapy: Use of Books as Form of Treatment in Neuropsychiatric Hospital. G. O. Ireland.—p. 440.
Physical Examinations. J. F. Howard.—p. 446.
Generalized Amyloidosis: Case. L. H. Criep.—p. 449.
Dental Radiograph Illuminator. F. D. B. McCall.—p. 453.
Transplantation of Ureter in Accordance with Coffey Technic. G. E. Pfeiffer.—p. 456.
Fracture of Left Tibia. A. J. Campbell.—p. 458.
Mishap with Lipiodol. D. W. Detwiler.—p. 460.
Spontaneous Pneumothorax Without Evidence of Pulmonary Tuberculosis. H. M. Fine.—p. 461.
Spontaneous Pneumothorax, Nontuberculous, with Recovery. W. J. Kesterson.—p. 463.
Benefits Derived by Mental Patients from Physical Examination. S. Grondahl.—p. 470.

Heat as an Adjuvant to Treatment of Neurosyphilis.—The effect of diathermy to the head in a number of selected cases of neurosyphilis was studied by Salisbury and Eichenlaub to determine whether the heat element alone is of value. These patients all had frank clinical cases of neurosyphilis with serologic reactions of varying intensity. All had previously received several courses of tryparsamide and mercury or tryparsamide and bismuth. An equal number of cases roughly corresponding to these clinically and serologically were used as controls, being treated as a routine with tryparsamide and mercury or tryparsamide and bismuth. Treatments were given for half hour periods daily, the average number in the series being 204. The average general rise in temperature was 0.4 degree. No noticeable acceleration of pulse or respiration was noted at any time, although it was carefully looked for during the first several exposures. One patient became rather irritable during the application of the diathermic current. One showed consistent flushing of the face and one complained of an occasional headache. In several the current seemed to have a sedative reaction. Originally twenty patients were in the series, but because three of them for various reasons received only a few treatments and could not be fairly judged, only seventeen are finally reported on. Clinical improvement resulted as follows: improvement moderate, one; improvement slight, five; no change, seven; deteriorated, three. In the group of those who received comparatively little or no additional treatment, the results are: improvement moderate, none; improvement slight, four; no change, three; deteriorated, two. In the group of those who received considerable additional treatment, the results are: improvement moderate, one; improvement slight, two; no change, four; deteriorated, one. In seventeen control cases in which diathermy was not used the following clinical results were noted: improvement moderate, three; improvement slight, eight; no change, six; deteriorated, none.

Books as Form of Treatment in Neuropsychiatric Hospital.—The use of bibliotherapy as a true reconstructive agent in its broadest sense is urged by Ireland. Since the war the importance of the hospital library has developed by leaps and bounds and the U. S. Veterans' Bureau suggested that the librarian in the neuropsychiatric service have a knowledge of the mechanism and general symptomatology of the various psychoses and thus be prepared for many of the peculiarities which various patients may display. Much can be done to help the mentally ill if the physician and librarian will cooperate. It is suggested that the ideal library should not obviously be an official part of the institution, but should appear informal and as much like home as possible, rather than a hospital service. The choice of books for such a library requires considerable care and a close inspection. Knowledge of the mechanism of the human instincts should be of invaluable assistance in choosing the vehicle by which to administer the doses of book therapy. A thorough mental study is essential and one should make special reference to the intellectual activity of the patient, gaging his ability to acquire and retain information, and judging his interest and power to outline judiciously that which is read. Patients should be taken to the library and allowed to choose their books, if possible, by themselves. If they are unable to do so, the assistant should lead them in the right direction.

Virginia M. Monthly, Richmond

56: 75-142 (May) 1929

Care and Feeding of Premature Infants. W. W. Waddell and R. L. King, University.—p. 75.
Nondraining Purulent Otitis a Source of Danger to Heart in Children. L. Davis, Roanoke.—p. 80.
Bronchograms in Study of Pulmonary Disease. D. B. Cole and L. J. Whitehead, Richmond.—p. 82.
Tularemia in Virginia: Three Cases. S. D. Blackford and W. E. Bray, University.—p. 84.
Rational Use of Digitalis. B. P. Seward, Roanoke.—p. 88.
Five Hundred Epitheliomas. C. A. Simpson and H. F. Anderson, Washington, D. C.—p. 92.
First Aid to Injured Eye. C. P. Jones, Newport News.—p. 96.
Rectal Anesthesia in Thyroid Surgery. H. H. Trout, Roanoke.—p. 98.
Rheumatic Heart Disease. P. A. McLendon, Washington, D. C.—p. 100.

Perforating Foreign Bodies in Esophagus: Three Cases. E. T. Gatewood, Richmond.—p. 104.
Basic Principles in Treatment of Syphilis. D. C. Smith, University. —p. 107.
Tularemia. G. G. Howery, Christiansburg.—p. 110.
Tuberculous Pneumonia. J. B. Nicholls, Catawba Sanatorium.—p. 112.
Treatment of Malignant Diseases of Oral Cavity. S. W. Budd, Richmond.—p. 115.
Urethral Infections. W. W. S. Butler, Roanoke.—p. 118.
Nasal Accessory Sinusitis. T. A. Poole, Washington, D. C.—p. 119.
Rôle of Ureters in Disease of Female Pelvis. G. F. Douglas, Birmingham, Ala.—p. 121.
Medical Gallbladder. P. Jacobson, Petersburg.—p. 124.
Intravenous Medication by Dyes. M. C. Newton, Narrows.—p. 126.

West Virginia M. Journal, Charleston

25: 321-384 (June) 1929

New-Born Infant. R. M. Tyson, Philadelphia.—p. 328.
Preserving Pelvic Floor During Labor. R. A. D. Gillis, Pittsburgh.—p. 336.
Disease of Heart Valves. M. C. Borman, Montgomery.—p. 339.
Clinical and Pathologic Study of Goiter. R. K. Buford, Charleston.—p. 343.
Medical Management of Goitrous Conditions. H. L. Robertson, Charleston. —p. 351.
Puerperal Septicemia. T. E. Vass, Bluefield.—p. 354.
Tuberculosis in Children. G. F. Evans, Hopemont.—p. 357.
Cancer of Liver with Differential Diagnosis. E. S. Dupuy, Beckley.—p. 360.

Wisconsin M. Journal, Milwaukee

28: 247-292 (June) 1929

Leukorrhea: Neglected Symptom. C. H. Davis, Milwaukee.—p. 247.
Normal and Abnormal Origin, Growth and Repair of Bone. E. J. Carey, Milwaukee.—p. 254.
Foreign Bodies in Esophagus and Upper Air Passages. J. J. Robb, Green Bay.—p. 258.
Spinal Anesthesia; Blood Pressure Control. R. B. Stout, Madison.—p. 261.
Liver: Subacute Yellow Atrophy Due to Cinchophen Poisoning: Case. W. C. Frenzel, Wausau.—p. 264.
Tuberculosis Theses: Diagnostic. L. Brown, Saranac Lake, N. Y.—p. 265.

FOREIGN

An asterisk (*) before a title indicates that the article is abstracted below. Single case reports and trials of new drugs are usually omitted.

British Medical Journal, London

1: 981-1024 (June 1) 1929

*Principles of Spa Treatment. W. Edgecombe.—p. 981.
*Vitamin A as an Anti-Infective Agent: Use in Treatment of Puerperal Septicemia. E. Mellanby and H. N. Green.—p. 984.
*Apparent Recurrences of Scarlet Fever. W. H. Kelleher.—p. 986.
Bloodless Tonsil Enucleation. O. Popper.—p. 988.
Tonsillectomy. H. N. Barnett.—p. 989.
Treatment of Asthma. A. G. Auld.—p. 990.
Case of Cutaneous Diphtheria as Cause of an Outbreak. A. Massey and G. J. C. Russell.—p. 992.
*Strangulation of Ovary in Inguinal Hernia Associated with Congenital Abnormality of Kidney. A. C. Liesching.—p. 993.
Hemophilia in the New-Born. J. L. Blonstein.—p. 994.

Principles of Spa Treatment.—Edgecombe says: In the present unsettled state of our knowledge of the precise action of mineral waters and baths, physicians who practice at spas should not attribute the successful treatment of chronic disease to the specific action of these agents, but should rather stress the fact that they treat these diseases on broad general principles; that they act as general physicians, making use largely of physical methods, in addition to ordinary therapeutic treatment, rather than as purely spa physicians, putting their faith in the specific action—as yet unproved—of any particular water or bath.

Vitamin A as Anti-Infective Agent.—On the basis of animal experiments which indicated that vitamin A is an anti-infective agent, Mellanby and Green have treated five cases of puerperal septicemia in which hemolytic streptococci were grown from the patient's blood with preparations rich in vitamin A. All the patients made complete recoveries, thus indicating that vitamin A, when given therapeutically, can raise the resistance of the human body against septic and infective micro-organisms.

Apparent Recurrence of Scarlet Fever.—Kelleher reports the case of a young woman who is said to have had five attacks of scarlet fever, the first in 1913, when she was 13 years of age, and the others in 1922, 1926, 1927 and 1929. There would appear to be no doubt as to the genuineness of the first attack, and in the second also the signs and symptoms present warranted the diagnosis of scarlet fever. There seems to be some slight doubt about the nature of the rash in the third attack, but the subsequent peeling conformed more to the scarlet fever type than to that of recurrent scarlatiniform erythema. The fourth attack was very mild, but though the rash was fleeting there was no doubt about its character. As for the final attack, few observers, seeing it for the first time after desquamation had started and watching its progress, would have failed to arrive at a diagnosis of scarlet fever. The patient's history did not give any reason to implicate drugs or enemas in the causation of her attacks. In the intervals she never suffered from rashes of any description, nor did her skin ever show signs of dryness or of definite peeling. Her work was very light and insufficient to give rise to desquamation from the hands during prolonged periods of rest. Her previous illnesses included measles, chickenpox and whooping cough.

Strangulation of Ovary in Inguinal Hernia.—Liesching reports a case in which the diagnosis of strangulated inguinal hernia was made. The sac contained a strangulated gangrenous left ovary, tube and broad ligament. Strangulation was found to be due to a torsion of the tube and broad ligaments, which were both markedly elongated. The gangrenous organs were then resected. Subsequently a smooth, rounded tumor of firm consistency was felt lying in the pelvis close to the internal abdominal ring. It proved to be the left kidney, which was lying with its long axis almost horizontal across the brim of the pelvis, and its lower pole against the internal abdominal ring. The left ureter was about 2½ inches in length. In addition to its normal blood supply the kidney has an aberrant artery and vein communicating between its lower pole and the left common iliac vessels. The right kidney and ureter, the uterus and the right appendages were normal, though the uterus was displaced slightly to the left of the midline.

Lancet, London

1: 1179-1232 (June 8) 1929

Chemical Factors in Control of Circulation. H. H. Dale.—p. 1179.
Some Types of Septic Infection in Newly Born. H. C. Cameron.—p. 1184.
*Clinical Significance of Hyperbilirubinemia. H. G. Mogena.—p. 1187.
*Icterus Index of Blood Serum. G. W. Milroy.—p. 1189.
*Liver Therapy in Secondary Anemia. S. C. Dyke.—p. 1192.
Spinal Anesthesia. C. A. Pannett.—p. 1194.
*A Permanent Waver's Cramp. G. A. Stephens.—p. 1195.
*Case of Nephritis. E. Wordley.—p. 1196.

Tests for Hyperbilirubinemia.—Mogena states that as a result of his investigations he cannot admit that the van den Bergh reaction is useful in distinguishing the different kinds of jaundice. He often finds an immediate direct reaction when the serum is rich in bilirubin, and when the proportion of bilirubin is small, a delayed or indirect reaction is sometimes shown. The different reactions of serum with Ehrlich's reagent depend more on the quantity of bilirubin than on the way this has been formed. Friedmann and Strauss found in some cases that, while the indirect reaction is positive only at the beginning of jaundice, later the direct reaction occurs immediately and distinctly. Barchi also has observed that the rapidity with which the direct reaction appears depends on the concentration of bilirubin in the blood; it is therefore useless as a criterion by which to distinguish the nature of jaundice; dynamic jaundice responds to the diazo-reaction in the same way that the so-called static jaundice does. Mogena prefers the Herzfeld test. His observations with this test have shown that bilirubin does not normally exceed 6.25 mg. per cent; higher figures are a sign of functional disorder of the liver or of obstruction to the flow of bile.

Icterus Index of Blood Serum.—Observation has convinced Milroy that the icterus index is a simple and accurate test for hyperbilirubinemia which, if used in correlation with the clinical conditions in the case, is of value in diagnosis, treatment and prognosis. Sixteen cases of proved gallbladder disease were investigated. Twelve showed active cholecystitis or cholelithiasis with obstructive symptoms; only five showed clinical jaundice. All gave indexes between 10 and 50, and in every case the index returned to normal after operation. The remaining four cases showed indolent cholelithiasis and normal indexes. It follows then that, while the icterus index will not indicate the mere presence of gallstones, a raised index will appear as

soon as there are any signs of active disease, even in the early stages before clinical jaundice appears. Pathologic renal conditions do not raise the icterus index, which fact may make a differential diagnosis between renal and biliary colic. Nineteen patients with appendicitis were examined; five showed indexes between 6.1 and 7.8 and seven showed normal figures. The remaining seven had chronic appendicitis and showed normal indexes. Of nineteen cases of duodenal ulcer, ten gave indexes between 6.4 and 8.6; six gave normal figures, and three, in which hematemesis had recently been present, showed subnormal indexes. In both these conditions, then, as in biliary dysfunction, the icterus index may be raised. The lowest index obtained in active biliary dysfunction was 10, while the highest due to duodenal ulcer was 8.6. Therefore, an index of nine or more points to gallbladder disorder rather than to duodenal ulcer or appendicitis. The icterus index is of little value in differentiating acute appendicitis and perforated duodenal ulcer. From the fact that the icterus index returns to normal after operation for gallbladder disease, it is reasonable to deduce that a raised postoperative index is indicative either of an overlooked gallstone in the duct or, in old-standing cases, of an associated hepatitis, both of which involve a less favorable prognosis. The icterus index is of great value in cases of frank or suspected jaundice in which the need of a simple and practical method of accurately estimating the degree of jaundice present at a given time has long been felt. Milroy investigated thirteen cases of jaundice and found in all that the index rose or fell as the jaundice increased or diminished. The indexes obtained varied from 14.2 to 243.2. Only two patients with hyperemesis came under observation, but in both the icterus index was raised, the figures being 8.1 and 10.7; the latter patient died. In eight patients with pernicious anemia the index was raised to between 7.8 and 20, the last patient being jaundiced. All were treated by liver; in every case there was a marked improvement in the blood picture in five weeks and the index fell to normal in the same period. Nine cases of secondary anemia showed a low index, between 2.1 and 3.6. Of seventeen cases of cardiac disease, twelve showed decompensation and the index varied from 6.9 to 25, and in every case rose or fell as the clinical condition became worse or improved. The remaining five patients without decompensation showed normal figures. Twenty-two patients with syphilis under intravenous arsenical medication were examined, and the icterus index was taken every three weeks for varying periods. It was found that in the majority of cases the index remained normal, even after prolonged treatment. In a large percentage, however, there was a rise in the index at the commencement of treatment, followed by a gradual fall. In some cases the index rose above normal at this stage. This rise is apparently due to the toxic effect of the arsenic in persons unaccustomed to it, the return to normal denoting acquired tolerance. Two cases of arsenical dermatitis gave a raised index which fell to normal with the cessation of treatment. In one of the cases when treatment was recommenced the index again rose above normal, to subside once more when a second "rest" was given. Two patients with arsenical hepatitis, both with clinical jaundice, showed markedly raised indexes, one being 243.2, the highest in his series. In both the index fell to normal as they recovered under treatment. Eight patients with pneumonia showed indexes between 4 and 10.

Liver Therapy in Secondary Anemia.—Dyke is of the opinion that in certain cases of secondary anemia liver therapy is effective in causing a reticulocyte response and in raising the blood count. The best results are to be looked for in those cases of secondary anemia due to failure of blood regeneration after hemorrhage. The effect of the liver therapy is greatly enhanced by the simultaneous exhibition of iron.

Permanent Waver's Cramp.—Stephens relates the case of a young woman, aged 21, who after four years' strenuous employment as a "permanent (hair) waver," was compelled to give up work on account of severe pain in the right wrist. On examination it was found that she was suffering from tenosynovitis over the lower part of the right forearm.

Chronic Azotemic Nephritis.—Wordley reports a case of chronic azotemic nephritis of quite sudden onset in a young man. Clinically the outstanding feature of this case was the very short and indefinite story of ill health, at the most a vague feeling of malaise for three or four months. Before examination it was noted that the blood urea was more than 400 mg. per hundred cubic centimeters, and on examination, beyond a cloud of albumin in the urine, nothing abnormal whatever was found. The man had a good color in spite of the low red cells and hemoglobin, was well nourished and generally felt in fair health. The blood pressure was very little raised. Another curious feature of the case was the complete absence of edema throughout the whole time he was under observation. As a result of a low protein intake the blood urea fell considerably from 400 to 200 or just below and the patient was in fair health and able to take long walks. The serum calcium did not fall very low nor did the plasma phosphates rise very high in relation to the high urea figures; indeed, the calcium throughout was practically normal. The peculiar metallic salty taste in the mouth was at times troublesome to this patient, but was noted only when the blood urea was more than about 300 mg. per hundred cubic centimeters. As happens so often in this type of case, the symptoms of uremia came on with great suddenness.

Medical Journal of Australia, Sydney

1: 649-686 (May 18) 1929

*Intravenous Injection of Phosphates in Chronic Interstitial Nephritis. A. Bolliger.—p. 650.
*Hyperemesis Gravidarum: Treatment by Glucose and Insulin. C. E. D'Arcy.—p. 656.
Form of Typhoid Found in North Queensland. A. H. Baldwin and A. J. Bearup.—p. 659.
Prevention and Management of Placental Site Hemorrhage in Home. A. J. Cunningham.—p. 662.
*Hypersensitiveness to Linseed. C. Sutherland.—p. 665.
Unusual Strain of Eberthella Typhi (Bacillus Typhosus), Isolated at Townsville, North Queensland. A. B. Lilley.—p. 666.

Intravenous Injection of Phosphates in Nephritis.—Bolliger found that intravenous injection of certain quantities of sodium phosphate into dogs gives valuable diagnostic and prognostic information. The ill effects noted even from copious doses are not sufficient to discourage the application of this phosphate test in experimental or clinical work. In nephritic animals the phosphate injections seemed to exert a beneficial therapeutic action in regard to the course of nephritis, particularly the nutritional condition.

Dextrose and Insulin in Treatment of Hyperemesis Gravidarum.—D'Arcy encourages his patient to drink orange drinks with dextrose, barley water with fruit juice, and water. Should she continue to vomit, a 5 per cent solution of dextrose in saline solution is administered by rectum, usually 300 cc. (10 ounces) every four hours or, if better tolerated, by the continuous rectal drip method. If the patient salivates, atrophine, 0.54 mg. (1/120 grain), is given every eight hours. An alkali mixture containing a soluble form of bismuth is sometimes beneficial and well tolerated. Rest in bed with freedom from anxiety for a few days, together with absorption of fluid and dextrose, will benefit the patient with average mild hyperemesis. A patient with a more obstinate form is sometimes enabled to carry on her pregnancy by the administration of extract of corpus luteum.

Hypersensitiveness to Linseed.—Routine investigation made by Sutherland of allergic patients has shown that linseed (flaxseed) is frequently a cause of symptoms.

Practitioner, London

122: 341-404 (June) 1929

Preliminary Treatment in Enlarged Prostate. T. C. Evans.—p. 341.
Problem of Otosclerosis. M. Yearsley.—p. 348.
*Causation of Cancer. E. F. Neve.—p. 355.
Treatment of Duodenal Ulcer. A. P. Cawadias.—p. 360.
Clinical Notes on Mercurochrome-220 Soluble. H. W. S. Wright.—p. 371.
The Mouth (Teeth) as an Autobiography. F. W. Broderick.—p. 377.
The Spas of Czechoslovakia. W. J. Smyth.—p. 390.

Cause of Cancer.—Neve's experience with cancer in India has convinced him that surface cancer of the human body is due to irritation and not to parasitic action from without. Masses of proliferating cells under the influence of undue stimulation and outlawed from trophic nerve control may, however, themselves assume characters similar to those of parasitic growths. He suggests the probability that internal cancers arise from similar causes.

Archives de Médecine des Enfants, Paris

32: 249-312 (May) 1929

*Rôle of Congenital Syphilis in Infantile Hemiplegia. L. Babonneix.—p. 249.
*Use of Overheated and Homogenized Milk in Treatment of Eczema in Infants. G. Variot.—p. 255.
Absence of Rickets in Mexico. M. A. Torroella.—p. 262.
Tabetic Arthropathy in Young Girl. A. Léri and J. A. Lièvre.—p. 272.

Rôle of Congenital Syphilis in Infantile Hemiplegia.—In examining a large number of children with infantile hemiplegia, Babonneix frequently observed symptoms that could not be explained by lesions of the pyramidal tracts only. Some symptoms, such as localized or general muscular hypotonia or atonia and the spontaneous sign of Babinski, suggested lesions of the basal cerebral ganglions and of the cerebellar tract, and the abolition of tendon reflexes suggested lesions of the corresponding nerve roots. Hemianopia, visual aura, atrophy of the optic nerve and other sensory disturbances could be explained only by lesions of other parts of the brain or of the meninges, and the presence of obesity, diabetes insipidus or lipomatosis, by lesions of the infundibulum. Because of the multiple localization of the lesions and because of the presence of various kinds of congenital malformations, of mental deficiency, of signs of congenital syphilis and of the positive Wassermann reaction in the patients or in their parents, the author thinks (as Fournier did) that congenital syphilis is the most important factor in the pathogenesis of infantile hemiplegia, whereas the vascular lesions in obstetric traumatism are only incidental and secondary.

Use of Overheated and Homogenized Milk in Treatment of Eczema in Infants.—For the last seventeen years Variot has used homogenized and overheated (up to 227 F.) milk for the treatment of eczema in infants. The results were invariably good in both breast fed and artificially fed (cow's milk or proprietary foods) infants; however in the latter group of infants the condition was more refractory to treatment. In a case of chronic eczema in a child, aged 14 months, reported by him, the eczema was generalized to the whole body and remained refractory to various kinds of treatments tried since the child was 6 months of age. For a long time milk was completely excluded from the diet of the child. Homogenized and overheated milk, a mild laxative, and a soothing ointment after a starch bath were prescribed by the author; the eczema was cured in two or three months.

Bull. et Mém. de la Soc. Méd. des Hôpitaux de Paris

45: 493-534 (May 6) 1929

*Treatment of Migraine with Ergotamine Tartrate. A. Tzanck.—p. 495.
Cystadenoma of Head of Pancreas. N. Fiessinger and R. Cattan.—p. 497.
*Acromegaly Without Lesions of Hypophysis. P. Carnot, A. Lambling and M. Tissier.—p. 505.
*Syphilis from Blood Transfusion. H. Dufour.—p. 511.
Evolution of Edema in Hydremic Nephritis and Lipoid Nephrosis. M. Labbé, F. Nepveux, Gilbert-Dreyfus and Iung.—p. 514.
Posology of Acetylcholine. M. Villaret and L. Justin-Besançon.—p. 525.
*Tuberculous Periphrenitis (Loeper). P. Chevallier.—p. 530.

Treatment of Migraine with Ergotamine Tartrate.—Thirty patients with migraine were given ergotamine tartrate by Tzanck, and the results were good. He insists on the harmlessness of the treatment. The susceptibility of the patients was tested by means of a small dose (0.25 or 0.125 mg.) of the drug, administered subcutaneously, and daily doses of from 2 to 6 mg. by mouth or 1 mg. subcutaneously were used. In using this method the complications reported by other authors were not observed.

Acromegaly Without Lesions of Hypophysis.—At the necropsy of a woman, aged 76, with acromegaly, who died from cardiac decompensation (mitral insufficiency), a tumor of the hypophysis was not found by Carnot et al. but a large partially calcified psammoma, taking origin in the meninges in the region of the falx cerebri and compressing the left frontal lobe, was present. The psammoma was about the size of a small orange. Changes in the sella turcica and in the clinoid processes were not observed either on roentgenologic examination during the life of the patient or at necropsy. The patient had never had any of the usual symptoms of cerebral compression, with the exception of occasional mild cephalalgia several years before.

Syphilis from Blood Transfusion.—Dufour reports a case of syphilitic skin eruption without chancre in a young woman who had been treated by blood transfusion for anemia two and a half months previously. The Wassermann reaction of the patient, of her husband and of the donor was negative at the time of the transfusion, but it became positive in the patient at the time of the skin eruption.

Tuberculous Periphrenitis (Loeper).—Chevallier reports a case of tuberculous periphrenitis in a woman, aged 42. For several years the patient had suffered occasionally from pain in the feet, legs and lumbar region. Six months before the consultation, pain in the epigastrium began to appear on the average half an hour after meals. It lasted from thirty to forty minutes and was relieved by vomiting. Since then the emaciation, asthenia and cachexia had made rapid progress, and the patient was in poor condition when she was admitted to the hospital. However, on physical examination only dry pleurisy were observed, with thickening of the pleura of the base of the right lung and a tenderness on palpation of the right side of the abdomen. The temperature varied from 98.6 to 100.4 or 102.2 F. The lungs seemed to be normal, and the Wassermann reaction was negative. The patient died from cachexia two months later. At necropsy a thick membranous periphrenitis was found, involving both the peritoneal and the pleural parts of the diaphragm and surrounding (in a ring) the lower part of the esophagus. The right pleura was also thickened, as it was found during the life of the patient. Caseous tuberculous lesions with occasional tubercle bacilli were found in the peridiaphragmatic membranes at the anatomicopathologic examination, and recent discrete miliary tubercles were present under the pleura, on the peritoneum (upper part of abdomen) and in the liver.

Bulletins et Mém. de la Soc. Nat. de Chirurgie, Paris

55: 569-603 (May 4) 1929

*Treatment of Pancreatic Fistula by Anastomosis Between Fistula and Jejunum. J. Madier.—p. 570.
*Treatment of Phlegmons of Dental Origin by Bacteriophage (d'Herelle). A. Raiga.—p. 575.
Roentgenography of Aorta and Arteries After Intra-Arterial Injection of Sodium Iodide. R. dos Santos, Lamas and Caldas.—p. 587.

Treatment of Pancreatic Fistula by Anastomosis Between Fistula and Jejunum.—Madier reports a case of traumatic (surgical) pancreatic fistula in a man, aged 43, who had been operated on previously for peptic ulcer (resection of the stomach and gastrojejunal anastomosis). Seven months after the operation made by another surgeon, Madier performed a laparotomy, dissected the end of the pancreatic duct free and implanted it into the jejunum (efferent branch of the gastrojejunal anastomosis). The postoperative period was difficult and prolonged, and complicated by high temperature and the elimination of necrotic tissues from the abdominal wound. The patient, however, recovered completely two months after the operation had been performed, and, on repeated examinations one, two and three years after the operation, was found in good health.

Treatment of Phlegmons of Dental Origin by Bacteriophage (d'Herelle).—Raiga reports two cases of grave phlegmon of the submaxillary region that occurred as complications of the difficult eruption of wisdom teeth in girls, aged 15 and 17, respectively, and one case of phlegmon, complicating a caries of one of the molars, in a boy, aged 19. The symptoms were so grave that the extraction of the corresponding teeth was considered contraindicated and was postponed until the amelioration of the condition. Polyvalent bacteriophage (d'Herelle) was injected locally into the infected tissues and subcutaneously, at some distance from the phlegmon (general bacteriophage treatment). The pain, dysphagia and trismus disappeared in a few hours, the general condition rapidly improved, so that the patients could resume their occupations, and the phlegmons were cured in eleven and nineteen days, respectively. The extraction of the teeth was done without any complications after the complete recovery of the patients.

Gynécologie et Obstétrique, Paris

19: 257-336 (April) 1929

Rôle of Biology in Modern Gynecology. G. K. Givatoff.—p. 257.
*Late Results of Surgical Treatment of Tuberculosis of Adnexa Uteri. F. Condamin.—p. 271.
Tracheal Aspirator. V. le Lorier.—p. 283.
*Primary Cancer of Uterine Tube. L. le Balle and R. Patay.—p. 286.
Late Results of Treatment of Uterine Retroversions by Doleris-Gilliam Method. I. Tikanadzé.—p. 304.
Results of Prophylactic Abdominal Version in Breech Presentations. G. Petrone.—p. 321.

Late Results of Surgical Treatment of Tuberculosis of Adnexa Uteri.—Condamin reports the results of the surgical treatment of tuberculosis of the adnexa uteri in fifty-three patients. In nine patients with the ascitic form of adnexal tuberculosis laparotomy with evacuation of the ascitic fluid was performed six times, conservative excision of the diseased parts was performed once, and hysterectomy (for some associated lesions) was performed twice; in five patients with the interstitial form of adnexal tuberculosis, one laparotomy, one hysterectomy and three laparotomies with conservative excisions of diseased parts were done, and in thirty-nine patients with the ulcerocaseous form of adnexal tuberculosis, three laparotomies, fifteen conservative excisions and twenty-one hysterectomies were done. In the last group of the patients, two died from acute peritonitis shortly after the operation, and three others died from generalized miliary tuberculosis and pulmonary tuberculosis, respectively, from one to seven years later. Of the rest of the patients, four could not be followed up, ten were ameliorated and thirty-four were cured. Some of the patients of the last group were under observation for more than twenty years, and only once was a recurrence of the symptoms observed; it was rapidly checked, however, by another surgical intervention.

Primary Cancer of Uterine Tube.—Le Balle and Patay report a rare case of primary cancer of the right uterine tube in a patient, aged 44. Some irregularity in the menstruation, considerable leukorrhea and a feeling of fatigue in the lumbar region had appeared five months before the gynecologic examination was made, at which only signs of slight metritis and chronic, nodular adnexitis were found. Two months later a curettage of the uterus was done because the medical treatment prescribed had been unsuccessful. The anatomicopathologic examination of the scraping of the uterine mucosa was negative. As the leukorrhea was not ameliorated and the general condition of the patient became worse, laparotomy was performed; cancer of the right uterine tube was found, and hysterectomy with bilateral salpingo-oophorectomy was done. The patient was seen sixteen months later, in good general condition and without metastasis.

Paris Médical

1: 409-448 (May 4) 1929

Diseases of Nutrition in 1929. F. Rathery and R. Kourilsky.—p. 409.
*Association of Diabetes Mellitus and Exophthalmic Goiter. M. Labbé and Gilbert-Dreyfus.—p. 429.
Respiratory Metabolism. L. Plantefol—p. 434.
*Pathogenesis of Diabetes Mellitus of Pancreatic Origin. P. Mauriac and E. Aubertin.—p. 440.

Association of Diabetes Mellitus and Exophthalmic Goiter.—Labbé and Gilbert-Dreyfus report two cases of the concomitant occurrence of diabetes mellitus and exophthalmic goiter in women who, after they had recovered from diabetic coma, died from cardiovascular collapse, characteristic of exophthalmic goiter. In the first case diabetes mellitus developed first, and exophthalmic goiter appeared later; in the second instance the reverse was true and in another case reported, the two developed almost simultaneously. In all the cases iodine prescribed to check the symptoms of hyperthyroidism seemed to influence favorably the evolution of the diabetes mellitus. This fact corresponded to the favorable results of thyroidectomy or roentgen irradiation of the thyroid on the evolution of diabetes mellitus, reported by several authors, whereas insulin did not have an effect on the evolution of the exophthalmic goiter and was even less effective in the treatment of the diabetic symptoms. The authors think that, though hyperthyroidism can cause disturbances in the metabolism of carbohydrates, it cannot cause diabetes mellitus, but can only aggravate slight pancreatic insufficiency or make manifest latent hyperglycemia of pancreatic origin.

Pathogenesis of Diabetes Mellitus.—Mauriac and Aubertin discuss the complexity of the pathogenesis of diabetes mellitus and, leaving aside the rôle of disturbances of various endocrine glands (such as the thyroid, suprarenals and hypophysis), the nervous system and the liver, try to explain the mechanism involved in the pathogenesis of diabetes mellitus of pancreatic origin. Placing insulin in contact with the whole blood, blood serum, plasma or erythrocytes of healthy and sick persons, respectively, they observed an inactivating effect of these substances on the insulin. The same results were observed in experiments with extracts of various organs such as muscles, kidneys or lungs. The inactivation of insulin was greater by the blood of patients with diabetes mellitus and was maximal in the presence of hemolyzed erythrocytes. This was explained by the presence in the erythrocytes of some substance having the power to neutralize insulin. If the permeability of the membrane of the erythrocytes is abnormally increased, this neutralizing substance may inactivate the insulin secreted by a normal pancreas and thus cause hyperglycemia, or the combination of decreased pancreatic secretion and of neutralization of insulin may be present. Only rarely are the pathologic changes in the pancreas so advanced as to explain diabetes mellitus by only a deficiency of the pancreatic secretion.

Presse Médicale, Paris

37: 617-632 (May 11) 1929

*Puerperal Hemiplegia and Aphasia. A. Fruhinsholz and L. Cornil.—p. 617.
Subdiaphragmatic Resection of Splanchnic Nerves. S. Pereira.—p. 620.
*Disturbances of Menstruation in Genitoperitoneal Tuberculosis. C. Brody.—p. 622.

Puerperal Hemiplegia and Aphasia.—Fruhinsholz and Cornil try to isolate a type of puerperal hemiplegia and aphasia different from the hemiplegias and aphasias that are observed in the puerperium in women with a history of syphilis, albuminuria, eclampsia, cardiac diseases, severe infection or hysteria. Hemiplegia and aphasia of this particular type (sixteen cases of which are reported by the authors) are usually observed in young women, mostly primiparas in good general condition and good previous health but possibly after a slight puerperal infection (caused by some minor surgical intervention during labor or by difficult and protracted delivery). Some of them occur early, on the second or the third day after delivery, in the form of transient aphasia or monoplegia that disappears two or three days later as suddenly as it appeared; the others occur two or three weeks after delivery, usually in the form of right hemiplegia with aphasia (combined motor and sensory), and remain from one to two months. The facial nerve is usually involved, but the Babinski sign is not present. In four of the sixteen cases reported simultaneously attacks of jacksonian epilepsy provoked by physical examinations of the patients were observed. The prognosis is invariably good and the recovery of the patients is complete and permanent, withstanding the test of subsequent pregnancies. The authors see an analogy between this type of puerperal hemiplegia with aphasia and phlegmasia alba dolens, and think that these two conditions may have the same pathogenesis.

Disturbances of Menstruation in Genitoperitoneal Tuberculosis.—On the basis of his experience and on the authority of many specialists, Brody comes to the conclusion that Godelier's law is too absolute, and that many cases of peritonitis are observed without pleural lesions. This is true especially in pelvic peritonitis, which is usually not complicated by pleurisy and does not even involve the peritoneum of the whole abdominal cavity but remains limited to the pelvis. It is usually associated with tuberculosis of the uterus and uterine adnexa, which develops before, simultaneously or after it, and therefore various disturbances of menstruation are often observed during its course. Menorrhagia and metrorrhagia are rare and are usually observed alternating with oligomenorrhea or amenorrhea, which occur often as well as dysmenorrhea, which is usually caused by peritoneal adhesions.

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Schweizerische medizinische Wochenschrift, Basel

59: 469-492 (May 4) 1929

Dangers of Volatile Poisons: Their Prevention. H. Zangger.—p. 469.
Glass Blower's Cataract: Detachment of Superficial Layers of Capsule of Lens. A. Vogt.—p. 475.
Practical Value of Topographic Anatomic Studies in Evaluation of Pathologic Changes in Lung. E. Zueblin.—p. 477.
*Infant Mortality in Narrow Pelvis Following Vaginal Delivery and Cesarean Section in Labor. T. Koller.—p. 482.
*After-Treatment in Injection Therapy of Varicose Veins. E. Bosch.—p. 482.
Mayor's Hammer Used as Cutaneous Derivative. C. Roux.—p. 483.

Infant Mortality in Narrow Pelvis Following Vaginal Delivery and Cesarean Section in Labor.—Koller gives a tabular report of births in women with narrow pelves during the years 1923 to 1928. The report indicates that the number of births in cases of narrow pelvis is about the same from year to year. It also shows that the infant mortality in such cases has decreased in the same proportion as the delivery by cesarean section has increased. The author likewise points out that the mortality caused by the operation itself has been reduced for the mothers as well as for the children. The syndrome of the fixation of the lower segment of the uterus, which was first described by Frey, indicates the necessity of cesarean section before the development of various complications which endanger the life of both mother and child if the operation is postponed.

After-Treatment in Injection Therapy of Varicose Veins.—In the treatment of 200 patients with varicose veins, Bosch employed the following method: Under manual compression of the vein, the patient is given an injection of from 5 to 10 cc. of a sterile 20 per cent solution of sodium chloride. Following this injection, cramps usually develop in the region of the vein. As long as they last, the patient should rest; after that he may walk. The control examination which is made several days later reveals a local swelling due to the artificially produced phlebitis. This condition, as well as the slight pains, generally disappears after several days or weeks. In order to secure permanent results with these injections, and to prevent a relapse, careful after-treatment is necessary. It is known that slight pressure on the skin is sufficient to press the blood into the deeper veins. To effect this practically, different methods may be employed. The author discusses the advantages and disadvantages of various bandages and of different types of rubber stockings. He considers the most advantageous bandage a stocking made of mercerized cotton. He employed it successfully not only in the after-treatment following injection or operation, but also in those cases in which such treatments were not advisable.

Clinica Medica Italiana, Milan

60: 1-86 (Jan.-Feb.) 1929

So-Called Gastro-Enteritis of Early Infancy. G. Invernizzi.—p. 1.
*Sugar Introduced into Organism and Insulinemia. V. Cavallaro.—p. 37.
*Function of Reticulo-Endothelial System: The Congo Red Test. M. Massa.—p. 42.
Pituitary Extract and Blastomas. G. D'Ascia.—p. 57.
*Complication of an Aortic Valvular Endocarditis by an Endocardiac Anomaly. L. Sansone.—p. 66.
*The Virus of Varicella. Invernizzi and Müller.—p. 79.

Sugar (Dextrose) Introduced into the Organism, and Insulinemia.—Cavallaro found experimentally that the ingestion of dextrose did not cause an increase in the pancreatic hormone of the peripheral venous blood. The pancreatic hormone was extracted by the Dodds and Dikens method from the normal peripheral venous blood of dogs that had received dextrose and of others that had not. The injection of the hormone obtained from either group provoked an initial hyperglycemia in fasting rabbits and a subsequent lowering of the glycemic rate, resulting in death. Slight variations in the results were attributed to individual reaction.

Clinical Experiments on the Function of the Reticulo-Endothelial System: The Congo Red Test.—Massa declares that the fundamental staining property of the reticulo-endothelial system is useful in the pathologic study of certain infectious diseases, especially from the point of view of prognosis. The rate at which the color disappears from the circulation is a measure of the color-fixing power and, accordingly, of the activity of the reticulo-endothelial system. Congo red was injected into normal subjects and into patients with splenomegalic disorders, chiefly malaria. In normal persons the circulating color diminished rapidly at first, then gradually more slowly. After sixty minutes, tests of the blood plasma showed from 50 to 79 per cent of the amount of color injected, depending on the age of the subject tested. In malaria the percentage remaining was higher than normal and varied between 70.5 and 86.7. Pneumonia showed an abnormally high residuum, as did diseases of the liver, gastric carcinoma and renal ptosis. Normal amounts of color remained in digestive, renal, diabetic and respiratory diseases, chronic leukemic myelosis and Werlhoff's disease.

Complication of an Aortic Valvular Endocarditis by an Endocardiac Anomaly.—An ulcerative endocarditis of the right anterior cusp of the aortic valve, reported by Sansone, was complicated by a perforation of the ventricular septum and a septic necrobiotic ischemic infarct of the right lung. Inflammation in the medial portion of the aortic valve resulted from a fold of the endocardium, 2 cm. long, which histologic examination seemed to reveal as a congenital malformation. Factors in the formation of the pulmonary infarct were embolism and thrombosis of a branch of the pulmonary artery, and the toxic action of bacteria. Predisposing conditions were a chronic fibrosis, adhesive pleuritis, cornification and fibrinous pneumonia in the stage of gray hepatization; these conditions formed an obstruction to the return circulation, favoring ischemia of the tissues of the lung.

Experimental Research on the Virus of Varicella.—Invernizzi and Müller were unable to prove experimentally the neurotropism of the virus of varicella. The contents of vesicles of varicella were injected intracranially in one group of animals and intra-ocularly in another, either by injection of the material into the anterior chamber of the eye or by application to the scarified cornea. Histologic examination of the animals undergoing intra-ocular injections showed a circumscribed area of healing resulting from a progressive traumatism, but no giant or annular cells or intracellular bodies; nor were there perivascular or parenchymal infiltrations or hemorrhagic areas in the brain. Completely negative results were obtained from intracranial injections.

Clinica Pediatrica, Modena

11: 189-288 (March) 1929

Status Marmoratus of Corpus Striatum. V. de Benedetti.—p. 189.
*Influence of Thymus on Cholesterol Metabolism in Early Childhood. G. A. Piana.—p. 217.
*Colloidal Benzoin Test in Infancy. P. Barbacci.—p. 228.
*Value of D'Amato Reaction in Diagnosis of Congenital Syphilis. F. Paradiso.—p. 245.

Influence of Thymus on Cholesterol Metabolism in Early Childhood.—Piana considers that the thymus consumes and regulates cholesterol rather than produces it. After the removal of the gland in young animals, the cholesterol content of the blood increased from one fourth to one third in the first twenty-four hours, and in the surviving animals subsequently returned to normal. A functional antagonism exists between the thymus and the suprarenals. The extirpation of the thymus results in an increased production of epinephrine producing, in turn, an increase of cholesterol mobilized from the tissues and from the suprarenal cortex. The author assumes, therefore, that the excision of the thymus checks processes of destruction of cholesterol which normally occur.

Colloidal Benzoin Test in Infancy.—Barbacci reports that the colloidal benzoin test cannot be used to differentiate the types of inflammatory disease of the meninges. It is of value, possibly, in diagnosing cases of tuberculous meningitis when its results are correlated with the symptoms and the history. The conditions examined included: cerebrospinal meningitis, tuberculous meningitis, syphilitic infections other than tubercular syphilides, chronic hydrocephalus, meningo-encephalitis, mongolian idiocy and purulent meningitis. Positive results from the benzoin test virtually paralleled the Pandit and Boveri reactions. This is regarded as proof that the positiveness of the colloidal benzoin test results from the increase of globulin and not from the hyperalbuminosis of the cerebrospinal fluid.

Value of D'Amato Reaction in Diagnosis of Congenital Syphilis.—Paradiso's results with the D'Amato reaction for congenital syphilis failed to agree in all cases with the Wassermann and Meinecke reactions. The injection of red mercuric iodide produced a negative leukopenic reaction in 46.6 per cent of a group of twenty patients, from a few days to 11 years of age, who presented clinical signs of syphilis; the injection of arsphenamine and neoarsphenamine gave negative results in 14 per cent. A negative reaction followed treatment with preparations of mercury in 50 per cent of subjects who showed as evidence of congenital syphilis a family history of syphilis, dystrophic manifestations, anemia and splenomegaly. Treatment with arsphenamine and neoarsphenamine gave negative results in 30 per cent of the cases. The author concludes that the Wassermann and Meinecke reactions are superior to the D'Amato reaction in the diagnosis of congenital syphilis.

Giornale di Clinica Medica, Parma

10: 131-196 (Feb. 28) 1929

Pulmonary Suppurations and Various Methods of Treatment. G. Bernardi.—p. 131.
*Subphrenic Serous Collection of Traumatic Origin. F. Giugni and E. Benassi.—p. 151.
*Cholecystography and Operative Control. N. Lovisatti.—p. 162.

Subphrenic Serous Collection of Traumatic Origin.—Giugni and Benassi emphasize that the diagnosis of an inflammatory process involving the subphrenic serosa, with the formation of a fluid collection, is always difficult and often obtainable only by radiologic means. Their patient, a man, aged 22, when in excellent health was struck in the right flank by the cross bars of a telegraph pole. Seven days later he was admitted to the hospital, with a moderate fever (39.2 C., or 102.6 F.) and severe pains in the right side. Radiologic examination of the respiratory apparatus, two days later, revealed a lessened excursion of the right hemithorax as compared with the left, but there was no fluid exudate. For twenty days, the fever kept up, the temperature being often above 39 C. (102.2 F.). After a long febrile period, the patient began slowly to improve. The subjective disturbances were lessened, and objectively one could note a diminished tension of the abdomen. During a period of febrile remission, guided by new radiologic observations, several exploratory punctures were made at the base of the right hemithorax in the tenth intercostal space. A small quantity of a limpid exudate was aspirated. The needle being inserted more deeply, and the resistance of the diaphragmatic muscle being overcome, a cavity appeared to be entered and without difficulty a serous fluid mixed with dark blood was aspirated. On penetrating still more deeply, the resistance of the liver tissue was encountered and no more fluid was found. From the fluid taken from the pleural cavity and also from that of the subphrenic collection, a coccus of low virulence vitality was grown in the first cultures but not in successive transplants. After ninety-one days of fever, with brief periods of apyrexia, the patient showed a decisive improvement. The fever receded by lysis, the subjective disturbances ceased, and a careful examination of the respiratory apparatus and the abdominal organs revealed nothing abnormal.

Cholecystography and Operative Control.—Lovisatti concludes from his observations that a negative cholecystographic finding indicates, in 95 per cent of the cases, grave changes in the gallbladder, the cystic duct or the common bile duct. Cholecystography is a method of unquestionable value in researches on the biliary tract, but in order to establish a diagnosis it must be combined with other semeiologic methods, particularly the Einhorn sound and opaque meal. Examination with the Einhorn sound will give valuable information in noncalculous chronic cholecystitis and in functional disturbances of the bile secretion. Roentgen examination will often not only clarify the diagnosis but give the surgeon useful hints with reference to the intervention.

Riforma Medica, Naples

45: 281-312 (March 2) 1929

*Action of Insulin on Operative Hyperglycemia. B. Bonomini.—p. 283.
Idiopathic Macular Atrophy of the Skin. U. Cavallucci.—p. 287.
Surgical Treatment of Pulmonary Abscesses Due to Foreign Bodies. E. Aievoli.—p. 296.

Action of Insulin in Postoperative Hyperglycemia.—Bonomini has found that with an adequate quantity of insulin it is possible to check the rise of the sugar content of the blood that is ordinarily observed as a result of an operative intervention, especially if carried out under general anesthesia. The postoperative course of patients given a preoperative injection of insulin seems to be better than the course of patients not so treated, in that there is less headache, nausea and vomiting. In order to dispel the excess sugar in the blood resulting from a surgical intervention, somewhat larger quantities of insulin are needed than are required for dextrose injected artificially into the veins. The simple fact that injections of insulin will prevent hyperglycemia due to a surgical intervention cannot be cited in support of any of the theories advanced as to the origin of the hyperglycemia itself.

Rivista di Clinica Pediatrica, Florence

27: 161-219 (March 30) 1929

*Meningococcal Cerebrospinal Meningitis in Infancy, Particularly in Relation to Specific Therapy. A. Venuti.—p. 161.
*Intracutaneous Test with Horse Serum (Busacca) in Tuberculosis of Infancy. B. Benvenuti.—p. 187.
*Importance of Chlorides in Chemical Semeiology of Cerebrospinal Fluid in Diseases of Nervous System in Infants. P. Bosio and G. B. Seghezzo.—p. 203.

Meningococcal Cerebrospinal Meningitis in Infancy, Particularly in Relation to Specific Therapy.—Venuti found that the use of serum therapy lowered the mortality rate among children with cerebrospinal meningitis and favorably influenced the course of sequelae. The rate tended to rise with the late institution of serum therapy, with ventricular localization, and with bronchopneumonia. It was highest among nursing infants. The most effective doses of serum were those of from 80 to 150 cc. In particularly serious cases, from 200 to 250 cc. was given; in these, vaccine therapy gave good results. Apparently the serum therapy did not influence the later course of the disease. The author considers serum therapy combined with vaccine therapy still the best treatment for cerebrospinal meningitis.

Intracutaneous Test with Horse Serum (Busacca) in Tuberculosis of Infancy.—From 0.2 to 0.3 cc. of horse serum, injected into the forearm, produced a positive reaction in 31.25 per cent of a group of eighty infants, whereas the Pirquet skin test performed subsequently in the other arm resulted positively in 80 per cent. The Busacca reaction was negative in 68.75 per cent of the patients in whom the tuberculin test and the clinical and roentgenographic observations demonstrated tuberculous lesions. Further, the Busacca test was valueless in showing the stage of activity of the lesions. Benvenuti concludes, therefore, that the Busacca test is not practical for the diagnosis of ostearthritic tuberculosis and tuberculosis of the glands and serous membranes. The positiveness of the reaction results from the sensitized state of the organism toward serum that is encountered in tuberculous infections.

Importance of Chlorides in the Chemical Semeiology of the Cerebrospinal Fluid in Diseases of the Nervous System in Infants.—Bosio and Seghezzo state that the amount of chlorides in the cerebrospinal fluid is significant in diseases of the central nervous system. Estimating 7.22 Gm. per liter as the normal quantity, they found an early and marked diminution of chlorides in cases of tuberculous meningitis which showed values between 6.7 and 5.7 Gm., or a median of 6.26 Gm. In other forms of meningitis, the loss of chlorides was less marked; in cerebrospinal meningitis (Weichselbaum) the rate rose to normal in direct measure with the patient's improvement, disclosing, therefore, no prognostic value. This test should not replace the test for dextrose but should instead be employed with it; it is the simpler of the two because of the relatively large amount of chlorides in the cerebrospinal fluid but is less sensitive.

Prensa Médica Argentina, Buenos Aires

15: 1381-1432 (April 20) 1929

Heart Diseases: Relations to Puerperal State. R. Bustos Morón.—p. 1381.
Makins' Murmur in Arteriovenous Aneurysm. J. Diez.—p. 1396.
*Experimental Production of Leprosy in Monkey. G. Franchini.—p. 1423.
Lead in Treatment of Cancer. A. H. Roffo and O. Calcagno.—p. 1425.

Experimental Production of Leprosy in Monkey.—Franchini reports that following inoculation a monkey, after an interval of one year and a half, developed leprosy. A leproma appeared at the site of inoculation. This fact, the author believes, proves that the bacilli remained latent for a long time and then produced the leproma. The experiment is interesting because it shows how long the leprosy bacillus may remain latent in monkeys. It also confirms the belief that the first manifestation of experimental leprosy in monkeys does not confer immunity.

Semana Médica, Buenos Aires

36: 845-916 (April 11) 1929

Diagnosis of Epilepsy. M. Alurralde and B. B. Spota.—p. 845.
New Interpretation of Darier's Fibrosarcoma of Skin. D. Mosto.—p. 855.
Stone Fixed in Bulb of Urethra in Boy, Aged Six Years: Removal by External Urethrotomy. J. M. Macera and B. Messina.—p. 859.
Mydriasis Caused by Subconjunctival Injection of Epinephrine: Its Diagnostic Use. A. J. Manes.—p. 862.
Colloidal Silver Iodide in Urologic Radiology. U. Isnardi.—p. 863.
*Results of Bilateral Phrenicectomy. O. P. Curti.—p. 892.

Results of Bilateral Phrenicectomy.—Curti adds a new case to the total of 132 in which phrenicectomy has been performed. The patient, aged 37, had influenza in 1918. Since then he had had a cough and had slowly lost weight. Chronic bilateral tuberculosis of the lungs was present. Attempts to produce pneumothorax failed. A bilateral exeresis of the phrenic nerves was performed. The patient improved and was able to work.

Siglo Médico, Madrid

83: 629-656 (April 27) 1929

*Roentgen Therapy in Radiculitis. J. Ratera and S. Ratera.—p. 629.
*Facial Paralysis: Treatment and Recovery. A. Dorronsoro.—p. 637.

Roentgen Therapy in Radiculitis.—The Rateras believe that roentgen irradiation is one of the most efficacious treatments of radicular neuralgia. Six patients with neuralgia of the brachial plexus were successfully treated. Two of these were cured by only two irradiations. In this group, the irradiations were given over the area extending from the third cervical to the first dorsal vertebra. The authors treated in the same manner five cases of neuralgia of the dorsal roots. Two of these patients had zona, which disappeared at the same time that recovery took place. One of these patients recovered following two irradiations. Ten patients with sciatica were treated. In all of them the results were good; four made a rapid and permanent recovery. The treatment is free from danger because the doses of roentgen rays are small (from four to five H units). Radiations produced by tensions of 130 kilovolts, filtered through 5 mm. of aluminum and given at a distance of from 30 to 40 cm., were used. Generally two or three treatments, administered once a month, were sufficient.

Facial Paralysis: Treatment and Recovery.—Dorronsoro's patient, aged 15, after a trepanation of the right mastoid process, developed a right facial paralysis due to section of the facial nerve at the point of its emergence from the stylomastoid foramen. The branch of the spinal accessory nerve that goes to the trapezius muscle was anastomosed with the distal end of the facial nerve. Twenty-five days after the operation, electric massage was begun. Three months later there was noticeable progress in the movements of the lower eyelid.

Archiv für Schiffs- und Tropen-Hygiene, etc., Leipzig

33: 193-240 (April) 1929

Chylocele and Periorchitis Caused by Filaria Bancrofti. E. Delbanco, P. Mühlens and H. Vogel.—p. 193.
*Symptoms and Treatment of Bilharziosis. H. Goldie.—p. 198.
*Bilirubinemia in Malaria. M. E. Wolski and E. M. Schewelewa.—p. 210.
Effect of Environment on Size and Color of Anopheles. I. Achundow.—p. 215.
Characteristics of Lesion Produced by Bite of Glossina Palpalis. Graf.—p. 219.
Etiology of "Water Fever." H. Epstein and S. Tarassow.—p. 222.
*Value of Plasmochin in Treatment of Blackwater Fever. F. Ronnefeldt.—p. 223.

Symptoms and Treatment of Bilharziosis.—Goldie states that the chief symptoms of bilharziosis are anemia, generalized weakness, menstrual disturbances, attacks of abdominal pain and pulmonary disturbances. They are doubtless based on the presence of eggs and tissue proliferation in the uterus, the ureters and the lungs. In cases in which inorganic antimony preparations produce severe reactions, organic antimony preparations may be given intramuscularly with good results.

Bilirubinemia in Malaria.—In the examination of specimens of blood from 144 patients with malaria, Wolski and Schewelewa found that after several attacks of fever the bilirubin content of the blood increases until it is much higher than normal. After the attacks of fever have subsided, it slowly decreases. The diagnostic significance of the increased bilirubinemia during the fever periods is limited, however, since the clinical picture during these periods is sufficiently characteristic. Occasionally the increased bilirubinemia can be used in the differential diagnosis between malaria and typhoid or fever due to tuberculosis because in the latter condition the bilirubin content of the blood is decreased. In latent or chronic malaria the bilirubin content of the blood does not exceed the normal in the great majority of cases. Thus, in the very cases of malaria in which increased bilirubinemia would be of diagnostic value, the bilirubin content of the blood is normal.

Value of Plasmochin in Treatment of Blackwater Fever.—Ronnefeldt reports two cases of blackwater fever in which he obtained excellent results with plasmochin. He considers plasmochin the drug of choice in the prophylaxis of malaria, in the treatment of malaria in children and in the treatment of blackwater fever.

Deutsche medizinische Wochenschrift, Berlin

55: 687-728 (April 26) 1929

*Analysis of Icterus. T. Brugsch.—p. 687.
Development, Maturation and Reversions in Psychotherapy. J. H. Schultz.—p. 688.
Relation of Growth and Metabolism. C. Neuhaus.—p. 691.
Injured Brains of Dogs Brought to Normal Sensitiveness by Feeding of Brain Lipoids. E. Schilf.—p. 693.
*Histologic Demonstration of Spirochaeta Pallida in Organs of Mice Infected with Syphilis. F. Jahnel and R. Prigge.—p. 694.
Value of Cholecystography for Surgery. A. Dzialoszynski.—p. 695.
*Zondek-Aschheim's Reaction for Pregnancy. R. Brühl.—p. 696.
Infant Mortality Due to Defective Vitality Caused by Underdeveloped Center of Breathing, and Its Prevention. A. Peiper.—p. 699.
*Treatment of Anthrax in Man. S. S. Djatschenko.—p. 700.
Obstetric Activity of General Practitioner. N. Ellerbrock.—p. 701.
*Occurrence of Frost-Bite on Thighs. G. Benjamin.—p. 702.

Analysis of Icterus.—In explaining the pathologic processes in icterus, Brugsch directs attention to the changes that may be observed in a simple cutaneous hemorrhage. Several days after the hemorrhage, an area of bluish red discoloration may be noticed. Later it turns green. The green color is due to the formation of bile pigment. In the whole discolored area, bivalent iron can be detected. The skin has the capacity to decompose hematin into bilirubin and iron. When the cutaneous hemorrhages are extensive, as in scurvy, a universal icterus may develop. Because in such cases the bilirubin is formed in the skin, the author designates this type as "dermatogenic" icterus. Icterus that is due to acholia may be differentiated from the former by the variation in the color of the skin. Whereas in dermatogenic icterus the skin is yellowish green, in icterus due to acholia the discoloration is more brownish. This difference is due to the presence of more iron. The author describes a test by which this may be proved. He asserts that acholic icterus is due to dysfunction of the liver. In the disorder generally designated as hemolytic icterus, the spleen is of great significance. For this reason the author prefers to term it "splenogenic" icterus. Concerning icterus neonatorum, he states that it is due to a decomposition of erythrocytes in the whole reticulo-endothelial system in the liver, spleen and skin.

Histologic Demonstration of Spirochaeta Pallida in Organs of Mice Infected with Syphilis.—Jahnel and Prigge demonstrated the presence of *Spirochaeta pallida* in the lymph nodes of mice. The tests were made from sixty-seven to 179 days after intraperitoneal inoculations. No other symptoms of a syphilitic infection became manifest. The spirochetes were detected in comparatively small numbers. They were found in the inguinal, popliteal and axillary nodes. In one exceptional case they were also found in the kidney. However, the spirochetes could not be detected in the central nervous system.

Zondek-Aschheim's Reaction for Pregnancy.—Brühl discusses the physiologic principles of the Zondek-Aschheim reaction for pregnancy and gives a detailed description of the technic. He reports the results of the test in 192 cases. On the basis of his observations he concludes that the test gives correct positive or negative results in nearly all cases.

Treatment of Anthrax in Man.—Djatschenko points out that in Ukraine anthrax occurs comparatively often. He evaluates several methods of treatment, and he comes to the conclusion that serotherapy gives the best results. He employed this treatment in fifteen cases of anthrax; eleven of these patients were men and four were women, aged between 17 and 35. In all cases the disease had been contracted by contact with animals that were affected with anthrax. The localization of the pustular eruptions varied in the different patients. The diagnosis was based in eleven cases on the detection of anthrax bacilli, while in four instances microscopic examination was not necessary because the diagnosis was clear without it. The author describes the treatment as follows: The patients received a subcutaneous injection of 100 cc. of antianthrax serum. If no improvement was observed on the day following, and if the edema was increasing, they were given an additional injection of from 120 to 150 cc. If the general condition showed improvement, they received only about 50 to 80 cc. more. In some cases, however, a third injection was necessary. This therapy gave good results in fourteen cases. In one instance, in which the patient was brought to the hospital in a dying condition eight days after he contracted the disease, this treatment was of no avail.

Occurrence of Frost-Bite on Thighs.—Benjamin reports the case of a woman, aged 27, who on a cold day, after a walk lasting several hours, noticed frost-bite on her thighs. He points out that, in similar cases which were reported before, this condition had been traced to insufficient clothing. In this case, however, this factor could not have been responsible, since the patient had worn woolen hose during the cold season. The author assumes that an elastic band had caused disturbances in the circulation and that these had caused the frost-bite.

Klinische Wochenschrift, Berlin

8: 769-816 (April 23) 1929

Constitution and Heredity. O. von Verschuer.—p. 769.
Scarlet Fever Problem. F. von Gröer.—p. 774.
Idem. U. Friedemann.—p. 777.
Agranulocytosis. A. von Domarus.—p. 779.
Method for Increasing Number of Leukocytes in Severe Leukopenia: Technic of Oxydase Reaction. O. Mengler.—p. 782.
Immunity Processes in Syphilis: II. Changes of Blood in Syphilis. H. Kroó, F. O. Schulze and I. Zander.—p. 783.
*Treatment of Tuberculosis in Low Pressure Chamber. W. Singer.—p. 785.
Research Concerning Complement Fixation in Tuberculosis. E. Stengel.—p. 787.
*Epidemic Encephalitis and Arteriosclerosis. S. Kalischer.—p. 790.
*Changes in Sedimentation Speed of Erythrocytes in Diseases of Thyroid. E. P. Tschernosatonskaya.—p. 791.

Treatment of Tuberculosis in Low Pressure Chamber.—Singer states that, because of the fact that a sojourn in high mountains has a favorable influence on patients with tuberculosis, experiments were made to imitate certain characteristics of that climate. The deficiency in oxygen is considered one of the main factors of the climate of high altitudes. It has been observed that the transition into the high mountains causes an increase in the number of erythrocytes and in the hemoglobin. This increases the power of resistance of the organism and aids in the combat against tuberculosis. It has also been noted that under the influence of high altitudes a shifting of the acid-base equilibrium is effected, and in combination with this there occur changes in the colloidal system of the organism. In what manner and to what extent factors influence the tuberculous process, however, has not been definitely determined. Experiments were made to imitate the lower atmospheric pressure of the higher altitudes by placing the patients in a room in which the pressure had been reduced to equal the atmospheric pressure at an elevation of from 13,000 to 18,000 feet. The lowering of the pressure was effected with the help of a rotation pump. This instrument was used likewise to supply adequate ventilation. The patients were placed in the chamber for two hours each time, from four to six times weekly. The treatment was continued for from nineteen to twenty-eight double hours. The author gives a graphic representation of the hemoglobin content in the blood of the four patients before, during and after the treatment. One patient showed a considerable increase; in two others the increase was somewhat less, whereas in the fourth one it was hardly noticeable. When the cure was discontinued, the hemoglobin content decreased again. An effect on the tuberculous process was not observed. In one patient improvement was noted about three weeks after the treatment was given. The author points out that, according to his experiments, reduced air pressure has no essential effect on tuberculosis.

Epidemic Encephalitis and Arteriosclerosis.—It was noted by Kalischer that, on closer examination, disturbances which had been diagnosed as arteriosclerosis often proved to be epidemic encephalitis. The patients on whom these observations were made were usually adults. Only in rare cases could the disturbances be traced to a preceding influenza. However, in many cases febrile or subfebrile temperatures and tracheal and bronchial catarrhs were noted, and influenza caused in many cases exacerbations of the encephalitic symptoms. The author points out that ordinarily epidemic encephalitis occurs more often in individuals between the ages of from 20 to 40 than in older persons. He thinks that, in the aged, encephalitis may be influenced by an existing arteriosclerosis or that it may be possible that the encephalitis increases a latent arteriosclerosis. It is difficult to make a prognosis in either condition because relapses are frequent. Epidemic encephalitis and arteriosclerosis have many points in common. The author thinks that postmortem examinations might be helpful to determine the connection between them.

Changes in Sedimentation Speed of Erythrocytes in Diseases of Thyroid.—Tschernosatonskaya made experiments on thyroidectomized sheep and rabbits and also on sheep which had received thyroid preparations. He likewise tested the sedimentation speed of fifty patients with thyroid disturbances. All patients with hyperthyroidism showed a considerable increase in the sedimentation speed, while in patients with hypofunction of the thyroid it was decreased. The changes in the sedimentation speed were in direct proportion to the severity of the disease. The author concludes that the determination of the sedimentation speed is valuable for the diagnosis as well as for the prognosis of disturbances of the thyroid. It might also prove helpful to test the effectiveness of thyroid preparations.

Medizinische Klinik, Berlin

25: 623-662 (April 19) 1929

*Surgical Treatment and Irradiation of Carcinoma of Uterus. H. R. Schmidt.—p. 623.
*Radium Treatment of Malignant Tumors. C. Regaud.—p. 624.
Variations in Size of Heart During Sports. F. Deutsch.—p. 628.
Circumscribed Osteoporosis of Skull. A. Schüller.—p. 631.
*Irradiation of Operable Carcinoma. L. Freund.—p. 633.
Respiratory Displacement of Pancreas. F. Eisler.—p. 635.
Fracture of First Rib Caused by Muscular Traction. R. Pohl.—p. 636.
Evidence That Irradiation with Low Voltage Roentgen Rays and Protein Therapy Increase the Bactericidal Power of Blood. G. J. Pfalz.—p. 637.
Newer Methods for Investigation of Roentgen Rays of Long Wavelength. G. Ortner.—p. 640.
New Speculum for Use in Obstetric and Gynecologic Operations. M. Karp.—p. 644.

Surgical Treatment and Irradiation of Carcinoma of Uterus.—Schmidt points out that, in the treatment of carcinoma of the uterus, irradiation brings about the same results as surgery. However, many surgeons still prefer surgical treatment, either because of lack of apparatus or because they are not familiar with the technic of irradiation. The author aims to show what the surgeon may learn from irradiation. The greatest disadvantage of the operative treatment is its high mortality rate. The fatalities may be reduced by avoiding operations in those cases in which, although the cancer seems operable, the patients' general condition does not warrant surgical treatment. In such cases irradiation is advisable. Those cancers which seem locally inoperable should likewise be irradiated, for, although irradiation often fails, there is nevertheless a certain percentage of patients that may still be saved. Postoperative irradiation is essential to increase the permanent

results. Roentgen therapy with large doses, however, has not proved effective. Better results have been gained with radium irradiation or with small doses of roentgen rays. The author describes a method of treatment for carcinoma of the uterus which combines surgical treatment with radium and roentgen irradiation. He states that this treatment has brought good results in ten cases.

Radium Treatment of Malignant Tumors.—Regaud classifies carcinomas into two groups, those for which radiation is advisable and those for which surgery is indicated. For cancers of the mamma, stomach and rectum, and for certain carcinomas of the uterus, surgical treatment is the best. In cancers of the skin, oral cavity, pharynx, accessory nasal cavity, larynx, vagina and cervix of the uterus, however, radium treatments give better results. Further, the author discusses the essential biologic principles of radium irradiation. He assumes that radium irradiation is effective because it destroys the cancer cells. This implies that the carcinoma cells must have a greater sensibility toward radium. It has been observed that the gamma rays are more effective than roentgen rays, and in most instances it is also advisable to exclude the beta rays and the gamma rays of long wavelength. The time factor is also of great significance for the results of the treatment. The duration of the irradiation varies for the different types of carcinoma. The author also describes the various methods of radium irradiation, and he indicates for which type of cancer each method should be employed. Radioactive tubes may be placed in or around the cancerous growth. Radium surgery is that method in which the containers are placed in a surgically prepared cavity. In internal therapy the tubes are placed in the natural cavity. Two other methods are irradiation through the skin by means of radioactive tubes fixed in plastic containers, and distant irradiation.

Irradiation of Operable Carcinoma.—Freund comes to the conclusion that a combination therapy of surgical treatment and of irradiation gives the best results. The cancer is removed either with the knife or with the curet, and the open wound is irradiated. This method is radical and gives smooth scars. It proved effective particularly in the treatment of cancerous growths of the skin or of the mucous membranes.

Zeitschrift für urologische Chirurgie, Berlin

26: 339-362 (April 6) 1929

*Pathologic Changes in Kidney in So-Called Essential Hematuria. N. Warsch.—p. 339.
*Dissolution of Bladder Stones by Permanent Acid Irrigation of Bladder. J. Meyer.—p. 348.
*Hydronephrosis of Fetus as Cause of Dystocia. J. Piepenborn.—p. 384.
Löwenstein-Hohn's Method for Cultivation of Tubercle Bacilli from Urine. B. Radó and T. von Huth.—p. 396.
Prognostic Significance of Kidney Function Tests in Hypertrophy of Prostate. E. Widrich.—p. 413.
Perirenal Lipomatosis with Atrophy and Fat Substitution of Kidney. N. N. Elansky.—p. 431.
Effect of Chronic Inflammation of Male Adnexa on Upper Urinary Tract. W. Heckenbach.—p. 447.
*Transversopexia Renis: A New Method for Treating Hydronephrosis. B. von Mezö.—p. 488.
*Simplified Method of Paravertebral Anesthesia for Kidney Surgery. H. Widenhorn.—p. 494.
Anomalies of Kidney and Ureter. J. von Herman.—p. 505.
Diffuse Adenoma of Pelvis of Kidney. A. Plaut.—p. 562.
Anomalies of Kidney and Ureter. E. Dózsa.—p. 579.
Fat Substitution of Kidneys. E. Gimpelson.—p. 651.
Acid-Alkali Excretion Test for Functional Diagnosis of Diseased Kidneys. K. Werner.—p. 659.

Pathologic Changes in Kidney in So-Called Essential Hematuria.—In an examination of three kidneys removed at operation for so-called essential hematuria, Warsch found that the hemorrhage had been caused by subepithelial hematomas in the chronically inflamed pelvis of the kidney. Macroscopic and microscopic examination of the parenchyma of the kidney did not reveal changes sufficient to account for the profuse hemorrhage. The author emphasizes the necessity of examining the entire kidney including the pelvis before making a diagnosis of essential hematuria. He considers that these cases should be classed as hemorrhage from small foci, by reason of the disproportion between the hemorrhage and the anatomicopathologic changes.

Method for Dissolving Bladder Stones by Permanent Acid Irrigations of Bladder.—Meyer gives the technic of his method for dissolving bladder stones by the use of permanent acid irrigations and reports on thirteen cases of bladder stone treated by this method. The method is suitable for dissolving so-called alkaline stones only and there are so many difficulties connected with the procedure that the author does not feel certain that his method will take a place with the two other methods of treating bladder stone, namely, surgical removal and lithotripsy. He believes that in the cases in which the general condition of the patient is so poor that surgical intervention is contraindicated, the irrigation method does not offer any advantages. In the cases in which the general condition of the patient is satisfactory the use of the irrigation method may be followed by disagreeable complications. The method is particularly suitable for the removal of small stones from the bladder in young patients.

Hydronephrosis of Fetus as Cause of Dystocia.—Piepenborn reports on a case of dystocia caused by hydronephrosis of a solitary left kidney in the fetus.

Transversopexia Renis: A New Method for Treating Hydronephrosis.—Von Mezö states that whereas normally the ureter issues from the lowest part of the pelvis of the kidney, in hydronephrosis it issues from a point higher up on the pelvis. The object of all operations for hydronephrosis should be to eliminate the resulting recess in the pelvis of the kidney. To accomplish this the author fixes the kidney in a transverse position so that the ureter drains the entire pelvis. With this operation kidneys which otherwise would have to be removed can be left in place.

Simplified Method of Paravertebral Anesthesia for Kidney Surgery.—Widenhorn describes a simplified technic for paravertebral anesthesia in which only two injections are made: the injection of the twelfth dorsal and the first lumbar nerves. With this simplified technic he has performed two nephrectomies, five pyelotomies, three nephrostomies, four decapsulations, and one ureterotomy at the upper, proximal end of the ureter. In only one of the operations was it necessary to supplement the paravertebral anesthesia with ether (when traction was exerted on the pedicle of a kidney during nephrectomy).

Zentralblatt für Gynäkologie, Leipzig

53: 833-896 (April 6) 1929

*Hormone of Anterior Lobe of Hypophysis (Prolan). B. Zondek.—p. 834.
*Contraction of Spleen in Streptococcal Sepsis. R. Hubert.—p. 848.
Cyst of Uterus, Developing from Gartner's Duct. K. Fink.—p. 853.
Axial Torsion of Uterus. A. Sohn.—p. 855.
Lymphangioma of Oviduct. J. Schiffmann.—p. 857.
*Abortion in Vienna. S. Peller.—p. 861.
*Death from Hemorrhage in Early Abortion. M. I. Magid.—p. 871.
Value of Solution of Secondary Butylbrompropenylbarbituric Acid in Surgical Gynecology and Obstetrics. P. Goetz.—p. 874.
*New Instrument for Hysterectomy. J. Härtl.—p. 879.

Hormone of Anterior Lobe of Hypophysis (Prolan).—Zondek designates the hormone of the anterior lobe of the hypophysis "prolan." A table is given showing the results of a comparative study of the characteristics of prolan and folliculin. Prolan is modified at a temperature of 60 C. (140 F.) and is quickly destroyed by strong acid or strong alkali; it is dialyzable, soluble in water and insoluble in ether, and is precipitated by alcohol and acetone. When given to immature female rabbits it produces marked congestion and hypertrophy of all the organs of reproduction. The condition found on opening the abdomen of an immature female rabbit treated with prolan resembles an early pregnancy: the horns of the uterus, which normally are no thicker than a string in immature rabbits, are of the size of a finger, are bluish red, and contract when the abdomen is opened. The vessels of the uterus are distended and the ovaries are from six to eight times the normal size. The administration of prolan to young male rabbits causes a corresponding increased growth of the entire genital apparatus. This change is particularly striking in the seminal vesicles, which, following fourteen days' treatment with prolan, become six or eight times larger than normal. The author has also used prolan in the treatment of amenorrhea, with good results.

Contraction of Spleen in Streptococcal Sepsis.—Hubert states that during active contraction of the spleen the communi-

cations of the organ with the general circulation are closed. He believes that this accounts for the experimental fact that in streptococcal sepsis in mice it is impossible to decrease the virulence of streptococci in the spleen by the administration of an amount of chemotherapeutic agent sufficient to reduce the virulence of the streptococci in all other organs.

Abortion in Vienna.—In a statistical study of abortion in Vienna, Peller found that the total number of deaths following abortion increased during the first few years following the World War and then decreased; now there are fewer deaths from this cause in Vienna than before the war. The author believes that this improvement is due not to better treatment of the patients but to better social and economic conditions. He states that there is no justification for the contention that previous abortions increase the frequency of complications in subsequent abortions.

Death from Hemorrhage in Early Abortion.—Magid reports a case of fatal hemorrhage in the second month of pregnancy following attempts by the patient to produce artificial abortion. Necropsy revealed a placenta praevia cervicalis as the cause of the fatal hemorrhage. The author emphasizes the rarity of deaths from hemorrhage in abortion in normal nidation of the ovum and normal structure of the uterus and states that, in fatal cases of hemorrhage following abortion, a careful histologic examination of the body and the cervix of the uterus should always be made.

New Instrument for Hysterectomy.—Härtl describes an instrument that he has found of practical value in hysterectomy. It consists of tongs resembling the blades of tenaculum forceps and fixed to one end of a chain on which an iron ball is attached. The tongs are inserted into the fundus of the uterus and the jaws are fixed in place by means of a thumb-screw. The sterilized iron ball is then attached to the chain at such a distance from the tongs that it is brought within the field of operation. With the pelvis of the patient elevated, the ball exerts downward traction on the fundus, rendering the aid of an assistant for this purpose unnecessary. The elimination of an extra assistant for exerting traction on the uterus makes the operative field more accessible. The ball may be moved from one side to the other in order better to expose the parametrium on the opposite sides. In cases in which the uterine tumor is so large that it would be difficult to grasp it with the tongs, the author uses a corkscrew-like myoma borer attachment instead of the tongs.

Russkaya Klinika, Moscow

11: 1-146 (Jan.) 1929

Effect of Heliotherapy on Morphology of Blood in Bone Tuberculosis in Children. A. M. Bagashova and M. M. Smelovskaya.—p. 16.
Erythromelalgia, with Polycythemia and Raynaud's Disease. F. D. Gryazev.—p. 28.
Adiposis Dolorosa. P. N. Vasiliev.—p. 36.
Gastric Secretion in a Case of Artificial Esophagus. I. N. Sheftel.—p. 49.
Rôle of Sympathetic Nervous System and of Spinal Cord in Gastric Secretion. M. M. Gubergrits and J. S. Gluzman.—p. 63.
*Treatment of Dementia Praecox with Neurotoxins. Ya. G. Livshits.—p. 72.

Treatment of Dementia Praecox with Neurotoxins.—Livshits reports the results of the treatment of dementia praecox with neurotoxins. Small doses of cerebrotoxin were used in order to increase the vitality and stimulate the resistance of the cerebral nervous tissue, because Abderhalden's protective ferments for the cerebral cortex are usually present in the blood serum of patients with dementia praecox, showing a destruction of the brain substance, which is in accordance with both the clinical evolution of the disease and the results of anatomicopathologic examinations. Cerebrotoxin was prepared by the inoculation of horses with an emulsion of thoroughly washed, bloodless, aseptically prepared human brain from healthy persons who had been killed in an accident or had committed suicide. After a certain number of inoculations the horse serum was tested (Bordet-Gengon test for deviation of complement and cytolysis test) and was used only after it had proved to be not hemolytic. A considerable amelioration in the mental and physical condition was observed in twenty out of forty patients who received from 25 to 101 cc. of the serum during the four months of the treatment.

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Hydramnion. P. C. T. van der Hoeven.—p. 1904.
The Bartonella Problem. J. E. Dinger.—p. 1910.
*Abrasion, at Birth, of Proximal Epiphysis of Femur. R. J. Harrenstein.—p. 1926.

Abrasion, at Birth, of Proximal Epiphysis of Femur.—Harrenstein, in recent years, treated two infants with a birth lesion that he found difficult to understand. Eventually, he reached the conclusion that, during the extraction of the child, an abrasion of the proximal epiphysis of the femur had occurred. But even with this diagnosis some of the features of the roentgenograms were difficult to explain, which led him to study the nature of the lesions by experimenting with the cadavers of stillborn infants. The manifestations were essentially the same in the two cases. The author holds that, since the roentgenograms that were made soon after birth do not show a sharp-cut demarcation of the upper edge of the diaphysis of the femur, this sign observed in such cases during the first weeks after birth may be regarded as evidence of epiphysiolysis. In one case, union of the fragments occurred without treatment and the movements of the leg have become, for the present, fairly normal, but there is a possibility that manifestations of coxa vara may develop later. By the application of a stretching apparatus during the first weeks after birth, a better condition of the fragments would doubtless have been achieved. By using the stretching apparatus in the other case, a fairly satisfactory result was secured. It appears, however, that in this case, owing to the pressure that was exerted on the diaphysis in a medial direction, an overcorrection of the dislocation of the shaft of the femur has resulted. Harrenstein thinks that, as a rule, in these cases the application of an extension apparatus will suffice, and that at least such an application is necessary, in order to secure a favorable result.

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*Dermoid Cysts and Teratoid Tumors of Mediastinum. P. Bull.—p. 329.
Local Light Treatment of Tuberculosis of Larynx. R. Moe.—p. 346.
*Cases of Hidden Cancer. F. G. Gade.—p. 354.
Prophylaxis of Goiter as General Hygienic Problem. C. Schiøtz.—p. 361.
Sex Hormones in Urine in Pregnancy. L. Kreyberg.—p. 379.
Blood Groups. H. F. Høst.—p. 383.
*Torsion of Intra-Abdominal Fat. E. Hegge.—p. 395.
Pancreatic Necrosis in Ileus. E. Hegge.—p. 398.
Surface Membrane as "Cork" in Sahli Glass. R. Engebretsen.—p. 410.
Fate of Patients with Pleuritis Treated in Sanatorium. L. B. Smith.—p. 414.

Dermoid Cysts and Teratoid Tumors of Mediastinum.—In three cases, one personal, described in detail by Bull, are represented each of the three variations in which dermoid cysts of the mediastinum manifest themselves. A fourth case is cited briefly. The pathologic anatomy and clinical aspects of the condition are discussed on the basis of his own experience and the study of seventy of the 120 cases in the literature.

Cases of Hidden Cancer.—Gade states that, of 1,618 necropsies at Ullevaal Hospital in Oslo from 1908 to 1927 in cases with malignant tumor, 183, or 11.4 per cent, were not diagnosed clinically. Although cancer in Norway preponderates slightly in women, 67.8 per cent of the cases of hidden cancer were in men. In the rural districts of Norway a considerable number of deaths are not yet reported by physicians. The author therefore concludes that the official statistics on deaths from cancer in Norway should be corrected by the addition of 12 per cent, representing the cases of cancer not recognized, and further by an additional figure representing the cases of hidden cancer in deaths not reported by physicians. The official number of deaths from cancer in 1925 would then be increased from 3,259 to 3,748, or by 14.7 per cent, which he considers the normal ratio for cases of hidden cancer in Norway at present.

Torsion of Intra-Abdominal Fat.—Hegge reports a case of torsion of the omentum diagnosed as acute appendicitis. Twenty-one cases of free torsion of intra-abdominal fat are reported in the literature; in none was the diagnosis made before operation. In all but two of the cases the torsion was the cause of the disturbance, the patients being operated on under various diagnoses.